

FILE 'AGRICOLA' ENTERED AT 15:55:22 ON 24 JAN 2001

FILE 'CABA' ENTERED AT 15:55:22 ON 24 JAN 2001  
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FILE 'CAPLUS' ENTERED AT 15:55:22 ON 24 JAN 2001  
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FILE 'BIOSIS' ENTERED AT 15:55:22 ON 24 JAN 2001  
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=> s germination

L1 160388 GERMINATION

=> s embryo

L2 334412 EMBRYO

=> s somatic

L3 95026 SOMATIC

=> s priming

L4 26090 PRIMING

=> s 11 and 12 and 13 and 14

L5 2 L1 AND L2 AND L3 AND L4

=> d 15

L5 ANSWER 1 OF 2 CABA COPYRIGHT 2001 CABI

AN 95:167953 CABA

DN 950314492

TI Seed biology: where do we go next

AU Mayer, A. M.; Come, D. [EDITOR]; Corbineau, F. [EDITOR]

CS Department of Botany, Hebrew University of Jerusalem, Jerusalem 91904, Israel.

SO Proceedings of the Fourth International Workshop on Seeds: basic and applied aspects of seed biology, Angers, France, 20-24 July, 1992. Volume 3, (1993) pp. 1095-1104.

Publisher: ASFIS. Paris

Meeting Info.: Proceedings of the Fourth International Workshop on Seeds: basic and applied aspects of seed biology, Angers, France, 20-24 July, 1992. Volume 3.

ISBN: 2-9507351-4-2

CY France

DT Conference Article

LA English

=>

=> full text 15

FULL IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (>).

### Status: Path 1 of [Dialog]  
### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)  
Trying 3106900061...Open

DIALOG INFORMATION SERVICES  
PLEASE LOGON:  
\*\*\*\*\* HHHHHHHH SSSSSSS?  
### Status: Signing onto Dialog  
\*\*\*\*\*  
ENTER PASSWORD:  
\*\*\*\*\* HHHHHHHH SSSSSSS?nzf0xzjb \*\*\*\*\*  
Welcome to DIALOG  
### Status: Connected

Dialog level 00.12.12D

Last logoff: 11jan01 07:18:30  
Logon file001 11jan01 13:51:53  
KWIC is set to 50.  
HIGHLIGHT set on as '\*'  
\*\*\* NEW Current Year Ranges Install \*\*\*

File 1:ERIC 1966-2000/Dec 05  
(c) format only 2000 The Dialog Corporation

Set	Items	Description
---	---	-----
?b 5,10,50,76,203		
	11jan01 13:52:34	User260019 Session D34.1
	\$0.41	0.118 DialUnits File1
\$0.41		Estimated cost File1
\$0.03		TYMNET
\$0.44		Estimated cost this search
\$0.44		Estimated total session cost 0.118 DialUnits

SYSTEM:OS - DIALOG OneSearch  
File 5:Biosis Previews(R) 1969-2001/Jan W2  
(c) 2001 BIOSIS  
File 10:AGRICOLA 70-2000/Dec  
(c) format only 2000 The Dialog Corporation  
File 50:CAB Abstracts 1972-2001/Dec  
(c) 2001 CAB International  
**\*File 50: All 2000 updates have been reprocessed. Truncating CC**  
codes is recommended for full retrieval. See Help News50 for details.  
File 76:Life Sciences Collection 1982-2000/Oct  
(c) 2000 Cambridge Sci Abs  
File 203:AGRIS 1974-2000/Aug  
Dist by NAL, Intl Corp. All rights reserved

Set	Items	Description
---	---	-----
?s somatic embryo(?)	S1	0 SOMATIC EMBRYO(?)
?s germination	S2	156397 GERMINATION
?s embryo	S3	169368 EMBRYO
?s s2 and s3		156397 S2
		169368 S3
	S4	7168 S2 AND S3
?s somatic		

S5 89210 SOMATIC  
?s s4 and s5  
7168 S4  
89210 S5  
S6 806 S4 AND S5

?rd  
...examined 50 records (50)  
...examined 50 records (100)  
...examined 50 records (150)  
...examined 50 records (200)  
...examined 50 records (250)  
...examined 50 records (300)  
...examined 50 records (350)  
...examined 50 records (400)  
...examined 50 records (450)  
...examined 50 records (500)  
...examined 50 records (550)  
...examined 50 records (600)  
...examined 50 records (650)  
...examined 50 records (700)  
...examined 50 records (750)  
...examined 50 records (800)  
...completed examining records

S7 513 RD (unique items)

?d s7/8,k/all

**Display 7/8,K/1 (Item 1 from file: 5)**  
DIALOG(R)File 5:(c) 2001 BIOSIS. All rts. reserv.

12787156 BIOSIS NO.: 200000540779

**Anatomical study of zygotic and \*somatic\* embryos of *Tilia cordata*.**

2000

REGISTRY NUMBERS: 94-75-7: 2 4-D; 21293-29-8: ABA; 21293-29-8: ABSCISIC

ACID

DESCRIPTORS:

MAJOR CONCEPTS: Development; Morphology

BIOSYSTEMATIC NAMES: Tiliaceae--Dicotyledones, Angiospermae,  
Spermatophyta, Plantae

ORGANISMS: *Tilia cordata* (Tiliaceae)--\*somatic\* \*embryo\*, zygotic  
\*embryo\*

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Angiosperms; Dicots; Plants;  
Spermatophytes; Vascular Plants

CHEMICALS & BIOCHEMICALS: 2,4-D--plant growth regulator; ABA {abscisic  
acid}--plant growth regulator

CONCEPT CODES:

10060 Biochemical Studies-General

-more-

?

**Display 7/8,K/1 (Item 1 from file: 5)**  
DIALOG(R)File 5:(c) 2001 BIOSIS. All rts. reserv.  
11102 Anatomy and Histology, General and Comparative-Gross Anatomy  
25502 Developmental Biology-Embryology-General and Descriptive  
51000 Morphology, Anatomy and Embryology of Plants  
51510 Plant Physiology, Biochemistry and Biophysics-Growth,  
Differentiation  
51514 Plant Physiology, Biochemistry and Biophysics-Growth Substances  
51522 Plant Physiology, Biochemistry and Biophysics-Chemical  
Constituents

BIOSYSTEMATIC CODES:

26865 Tiliaceae

**Anatomical study of zygotic and \*somatic\* embryos of *Tilia cordata*.**

**ABSTRACT:** A comparative anatomical study was carried out on zygotic and  
\*somatic\* embryos of *Tilia cordata* Mill. to evaluate the effect of growth  
conditions on their development. Zygotic embryos (heart-shaped, torpedo,

Trying 3106016892...Open

Welcome to STN International! Enter x:x

LOGINID:ssspta1661ahp

PASSWORD:ngd264kg

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*

SESSION RESUMED IN FILE 'AGRICOLA, CABAB, CAPLUS, BIOSIS'

AT 08:27:31 ON 05 FEB 2001

FILE 'AGRICOLA' ENTERED AT 08:27:31 ON 05 FEB 2001

FILE 'CABAB' ENTERED AT 08:27:31 ON 05 FEB 2001

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FILE 'CAPLUS' ENTERED AT 08:27:31 ON 05 FEB 2001

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FILE 'BIOSIS' ENTERED AT 08:27:31 ON 05 FEB 2001

COPYRIGHT (C) 2001 BIOSIS(R)

CODEN: VMUBDF

DT Journal

LA Russian

CC 10-4 (Microbial Biochemistry)

Section cross-reference(s): 11

AB DNA of the oncogenic bacteria *Agrobacterium tumefaciens*, *Bacterium scabigenum*, ***Corynebacterium fascians***, *Pseudomonas savastanoi*, *Xanthomonas beticola* and the nononcogenic phytopathogenic bacterium *Xanthomonas hyacinthi* belong to the GC type (GC content in these

DNA is 59,6 53,6, 63,4, 62,0, 64,9 and 67,2 mole per cent resp.). N6-methyladenine, as a minor base (0,06-0,38 mole per cent), was found in DNA of all these bacteria. In addn. to this minor base, in DNA of *Xanthomonas beticola*, *P. savastanoi*, and *A. tumefaciens*, 5-methylcytosine (0.09-0.17 mol%) was also found. Thus, cells of the bacteria possess sp. methylases, which modify adenine and cytosine residues in DNA. DNA of

all

bacteria studied are characterized by a low degree of pyrimidine clustering; the greatest amt. of pyrimidine nucleotides is contained in mono- and dipyrimidine fragments (24,2-26,4 mol%). These common features of DNA structure of phytopathogenic bacteria (high GC content, methylation

character, low pyrimidine clustering degree) distinguish them from higher plant DNA (lower GC content, different methylation character and higher pyrimidine clustering) and may be used for the discrimination of these

DNA

(or their fragments) in transformed plant cells.

ST bacteria tumor forming DNA compn

IT Deoxyribonucleic acids

RL: BIOL (Biological study)

(of phytopathogenic tumor- forming bacteria)

IT *Agrobacterium tumefaciens*

*Bacterium scabigenum*

***Corynebacterium fascians***

*Pseudomonas savastanoi*

*Xanthomonas beticola*

(tumor-forming, DNA compn. of)

IT Bacteria

(phytopathogenic, tumor-forming, DNA compn. of)

IT 443-72-1 554-01-8

RL: BIOL (Biological study)

(of DNA of phytopathogenic tumor-forming bacteria)

L1 ANSWER 155 OF 284 CAPLUS COPYRIGHT 2001 ACS

AN 1977:119223 CAPLU  
DN 86:119223  
TI Growth of yeasts on spent lucerne whey and their effectiveness in scavenging residual protein  
AU Barnes, M. F.  
CS Dep. Biochem., Lincoln Coll., Canterbury, N. Z.  
SO N. Z. J. Agric. Res. (1976), 19(4), 537-41  
CODEN: NEZFA7  
DT Journal  
LA English  
CC 16-4 (Fermentations)  
Section cross-reference(s): 60  
AB The yeasts *Saccharomyces* and *Rhodotorula* were grown on spent lucerne whey under continuous culture and other culture conditions; cell yield was 5-6 g/L. The amt. of protein and amino acids remaining in the whey after ferment. was detd. as a means of checking the ability of these yeasts to scavenge this amino acid fraction from the whey. *Saccharomyces* in continuous culture gave the greater depletion of 2.8 g/L, which was improved by the addn. of carbohydrate to 3.7 g/L. These figures were, however, only 50% of the total amino acid fraction in the whey. Of a no. of other microorganisms tested, *Pseudomonas* and *Aspergillus niger* showed the most promise, but neither were as convenient as the yeasts.  
ST yeast cultivation alfalfa whey; juice alfalfa yeast growth  
IT *Aspergillus niger*  
***Corynebacterium fascians***  
Flavobacterium  
*Pseudomonas*  
*Rhodotorula*  
*Saccharomyces*  
(cultivation of, on alfalfa whey)  
IT Wastewater  
(from alfalfa leaf protein manuf., yeast cultivation on)  
IT Proteins  
RL: BIOL (Biological study)  
(of alfalfa, manuf. of, yeast cultivation on wastewater from)  
IT Alfalfa  
(yeast cultivation on liq. from leaf protein manuf.)  
  
L1 ANSWER 188 OF 284 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1998:83647 BIOSIS  
DN PREV199800083647  
TI (I): Fasciation- in *Casuarina equisetifolia*.  
AU Prasad, N. Syam (1); Rama-Rao, A.; Maheswara-Rao, G.  
CS (1) State Silviculturist, Regional Forest Res. Centre, Rajahmundry India  
SO Indian Forester, (Aug., 1997) Vol. 123, No. 8, pp. 773-774.  
ISSN: 0019-4816.  
DT Article  
LA English  
CC Phytopathology - Diseases Caused by Bacteria \*54504  
Morphology, Anatomy and Embryology of Plants \*51000  
Forestry and Forest Products \*53500  
BC Irregular Nonsporing Gram-Positive Rods 08890  
*Casuarinaceae* 25770  
IT Major Concepts  
Forestry; Infection; Pest Assessment Control and Management  
IT Diseases  
fasciation: bacterial disease  
IT Miscellaneous Descriptors  
stem malformation; symptomatology  
ORGN Super Taxa  
*Casuarinaceae*: Dicotyledones, Angiospermae, Spermatophyta, Plantae;  
Irregular Nonsporing Gram-Positive Rods: Actinomycetes and Related  
Organisms, Eubacteria, Bacteria, Microorganisms  
ORGN Organism Name  
*Casuarina-equisetifolia* (*Casuarinaceae*); ***Corynebacterium***

**fascians** (Irregular Nonsporing Gram-Positive Rods)  
ORGN Organism Superterms  
Angiosperms; Bacteria; Dicots; Eubacteria; Microorganisms; Plants;  
Spermatophytes; Vascular Plants

L1 ANSWER 189 OF 284 BIOSIS COPYRIGHT 2001 BIOSIS  
AN 1997:460676 BIOSIS  
DN PREV199799759879  
TI A simple DNA extraction method for PCR-based detection of *Xanthomonas campestris* pv. *pelargonii* in geraniums.  
AU Sulzinski, M. A. (1); Moorman, G. M.; Schlaginhaufen, B.; Romaine, C. P.  
CS (1) Dep. Biol., Univ. Scranton, Scranton, PA 18510 USA  
SO Journal of Phytopathology (Berlin), (1997) Vol. 145, No. 5-6, pp. 213-215.  
ISSN: 0931-1785.  
DT Article  
LA English  
SL English; German  
AB A simple method for PCR-based plant clinical diagnosis of bacterial blight  
of geraniums caused by *Xanthomonas campestris* pv. *pelargonii* is described.  
The method entails maceration of infected tissues in water or 10 mM TrisHCl, pH 8.0 buffer, followed by treatment of the macerate with a commercially-available extraction matrix (GeneReleaser) in which nucleic acid is released by brief microwave heating. Nucleic acid prepared in this manner served directly as template for PCR amplification with primers targeting a sequence in the genome of the bacterium. Using this protocol, it was possible to quickly identify *X. campestris* pv. *pelargonii* in infected geraniums, whereas amplification products were not obtained with nucleic acid preparations from noninfected plants, or from plants infected with the bacterial pathogens, ***Corynebacterium fascians*** or *Pseudomonas cichorii*.  
CC Biochemical Methods - Nucleic Acids, Purines and Pyrimidines \*10052  
Biochemical Studies - Nucleic Acids, Purines and Pyrimidines \*10062  
Horticulture - Flowers and Ornamentals \*53010  
Phytopathology - Diseases Caused by Bacteria \*54504  
BC Pseudomonadaceae 06508  
Irregular Nonsporing Gram-Positive Rods 08890  
Geraniaceae \*26105  
IT Major Concepts  
Biochemistry and Molecular Biophysics; Horticulture (Agriculture); Infection; Methods and Techniques  
IT Miscellaneous Descriptors  
CULTIVAR-PELARGONII; DIAGNOSTIC METHOD; DNA EXTRACTION METHOD; HOST; INFECTION; PCR-BASED DETECTION; PLANT PATHOGEN; POLYMERASE CHAIN REACTION-BASED DETECTION; PURIFICATION METHOD  
ORGN Super Taxa  
Geraniaceae: Dicotyledones, Angiospermae, Spermatophyta, Plantae;  
Irregular Nonsporing Gram-Positive Rods: Eubacteria, Bacteria;

DN IND85056571  
TI Nomilin acetyl-lyase, a bacterial enzyme for nomilin debittering of citrus juices.  
AU Herman, Z.; Hasegawa, S.; Ou, P.  
AV DNAL (389.8 F7322)  
SO Journal of food science, Jan/Feb 1985. Vol. 50, No. 1. p. 118-120, 124  
Publisher: Chicago, Ill. : Institute of Food Technologists.  
CODEN: JFDAZ6; ISSN: 0022-1947  
NTE Includes references.  
DT Article  
FS U.S. Imprints not USDA, Experiment or Extension  
LA English  
CC Q505 Food Composition, Horticultural Crop Products  
CT bitterness; citrus fruits; **corynebacterium fascians**; fruit juices; lyases  
RN 1063-77-0 (NOMILIN)  
  
L1 ANSWER 8 OF 284 AGRICOLA  
AN 85:33391 AGRICOLA  
DN IND85024141  
TI **Corynebacterium fascians**: phytopathogenicity and numerical analysis of phenotypic features.  
AU Elia, S.; Gossele, F.; Vantomme, R.; Swings, J.; Ley, J. de  
AV DNAL (464.8 P562)  
SO Phytopathologische Zeitschrift = Journal of phytopathology, June 1984.  
Vol. 110, No. 2. p. 89-105 ill  
Publisher: Berlin, W. Ger. : Paul Parey.  
CODEN: PHYZA3; ISSN: 0031-9481  
NTE Includes references.  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English  
SL German  
CC F832 Plant Diseases, Bacterial  
CT **corynebacterium fascians**; host parasite relationships; plant pathogens  
  
L1 ANSWER 9 OF 284 AGRICOLA  
AN 84:88100 AGRICOLA  
DN IND84064792  
TI **Corynebacterium fascians** (Tilford 1936) Dowson 1942  
the causal agent of leafy gall on lily crops in Belgium [Pathogenicity, isolation and identification].  
AU Vantomme, R.; Elia, S.; Swings, J.; Ley, J. de  
AV DNAL (464.8 P21)  
SO Parasitica., 1982 Vol. 38, No. 4. p. 183-192 ill  
Publisher: Bruxelles : Assoc. pour les Etudes et Recherches de Zoologie appliquee et de Phytopathologie.  
ISSN: 0031-1812  
NTE Includes references.  
DT Article  
FS Non-U.S. Imprint other than FAO  
LA English  
SL Dutch  
CC F832 Plant Diseases, Bacterial  
GT Belgium  
  
L1 ANSWER 10 OF 284 AGRICOLA  
AN 84:36034 AGRICOLA  
DN IND84021367

TI Isolation of some strains of **Corynebacterium fascians**  
(Tilford) Dowson in Czechoslovakia [Phytopathogenic bacterium].

AU Ulrychova, M.; Petru, E.

AV DNAL (450 B52)

SO Biologia plantarum., 1983 Vol. 25, No. 1. p. 63-67  
Publisher: Praha : Academia.  
ISSN: 0006-3134

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

CC F832 Plant Diseases, Bacterial

GT Czechoslovakia

L1 ANSWER 11 OF 284 AGRICOLA  
AN 83:141572 AGRICOLA  
DN IND83117521

TI Quantitative analysis of free amino acids in either leafy gall induced by  
**Corynebacterium fascians** or its tissue culture.

AU El-Wakil, M.; Blakeny, E.

AV DNAL (SB731.A1J6)

SO Egyptian journal of phytopathology., 1980 (pub. 1982) Vol. 12, No. 1/2. p.  
145-148  
Publisher: Cairo : National Information and Documentation Centre.  
ISSN: 0301-8180

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

SL Arabic

CC F832 Plant Diseases, Bacterial

RN 65072-01-7 (FREE AMINO ACIDS)

L1 ANSWER 12 OF 284 AGRICOLA  
AN 83:135030 AGRICOLA  
DN IND83115097

TI Relationships between growth and pathogenicity of **Corynebacterium fascians** (Tilford) Dowson Infection of peas, *Pisum sativum*.  
Relations entre la croissance et le pouvoir pathogene chez  
**Corynebacterium fascians** (Tilford) Dowson.

AU Rivain, J.G.; Roussaux, J.

AV DNAL (SB7.A3)

SO Agronomie : sciences des productions vegetales et de l'environnement.,  
1982 Vol. 2, No. 5. p. 479-485 ill  
Publisher: Paris : Institut national de la recherche agronomique.  
ISSN: 0249-5627

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA French

SL English

CC F832 Plant Diseases, Bacterial

L1 ANSWER 13 OF 284 AGRICOLA  
AN 83:46617 AGRICOLA  
DN IND83037197

TI Seed borne bacterial tumors in tobacco *Nicotiana clevelandii* x *glutinosa*,  
**Corynebacterium fascians**. Proceedings of the fifth  
International Conference on Plant Pathogenic Bacteria, August 16-23, 1981  
at CIAT, Cali, Colombia / technical editor J. Carlos Lozano; production

editor Paul Gwin.

AU Misra, A.; Jha, V.; Jha, S.; Sharma, B.P.

AV DNAL (QR351.I57 1981)

SO Proc Fifth Int Conf Plant Pathog Bact, 1982 p. 210-212 ill  
Publisher: Cali, Colombia : Centro Internacional de Agricultura Tropical,  
1982.

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

CC F832 Plant Diseases, Bacterial

L1 ANSWER 14 OF 284 AGRICOLA  
AN 83:21653 AGRICOLA  
DN IND83017456

TI A 78-megadalton plasmid occurs in avirulent strains as well as virulent  
strains of **Corynebacterium fascians** Causes a variety  
of plant diseases.

AU Lawson, E.N.; Gantotti, B.V.; Starr, M.P.

AV DNAL (QR1.C78)

SO Current microbiology., 1982 Vol. 7, No. 6. p. 327-332 ill  
Publisher: New York : Springer International.  
ISSN: 0343-8651

NTE 20 ref.

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

CC F832 Plant Diseases, Bacterial

L1 ANSWER 15 OF 284 AGRICOLA  
AN 82:30691 AGRICOLA  
DN IND82017681

TI Recent observations on leafy gall in Liliaceae and some other families  
**Corynebacterium fascians**.

AU Miller, H.J.; Janse, J.D.; Kamerman, W.; Muller, P.J.

AV DNAL (464.8 T44)

SO Netherlands journal of plant pathology., 1980 Vol. 86, No. 2. p. 55-68 ill  
Publisher: Wageningen, Netherlands Society of Plant Pathology.  
ISSN: 0028-2944

NTE Bibliography p. 67-68.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

SL Dutch

CC F832 Plant Diseases, Bacterial

L1 ANSWER 16 OF 284 AGRICOLA  
AN 81:93022 AGRICOLA  
DN IND81071324

TI Recent observations on leafy gall **Corynebacterium**  
**fascians** in Liliaceae and some other families Ornamentals.

AU Miller, H.J.; Janse, J.D.; Kamerman, W.; Muller, P.J.

AV DNAL (464.8 T44)

SO Netherlands journal of plant pathology., 1980 Vol. 86, No. 2. p. 55-68 ill  
Publisher: Wageningen, Netherlands Society of Plant Pathology.  
ISSN: 0028-2944

NTE 23 ref.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

Importance; Symbiotic Nitrogen Fixation; KK100 Forestry (General)  
GT New Zealand; Australia  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; trees; woody plants; Spermatophyta; plants;  
Puccinia; Uredinales; Basidiomycotina; Eumycota; fungi; Phytophthora;  
Peronosporales; Mastigomycotina; Myrtaceae; Mytales; dicotyledons;  
angiosperms; Hordeum; Gramineae; Cyperales; monocotyledons; Australasia;  
Oceania  
CT RHODOCOCUS FASCIANS; metabolism; replant disease; barley; ecology; forest  
trees; environmental factors; microorganisms; biological activity in soil;  
plant pathogenic bacteria; cereals; fruit crops; plant pathology  
ST Microbial ecology, NZ; microbial ecology; stone fruit; root response;  
suppressive soil; bacterial colonization  
ORGN Puccinia hordei; Phytophthora cinnamomi; Eucalyptus; bacteria; Hordeum  
vulgare

L1 ANSWER 66 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:71366 CABA  
DN 801364292  
TI **Corynebacterium fascians** (Tilf.) Dows. as parasite on  
cauliflower  
**Corynebacterium fascians** (Tilf.) Dows. aka parazit  
karfiolu  
AU Zacha, V.  
CS Inst. Agric., Bratislava, Czechoslovakia.  
SO Ochrana Rostlin, (1979) Vol. 15, No. 4, pp. 305. 4 ref.  
DT Journal  
LA SLOVAKIAN  
AB Malformations and fasciation of adventitious buds on the basal part of  
plants just above the soil surface were caused by *C. fascians*.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT Czechoslovakia  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; Brassica oleracea; Brassica; Cruciferae;  
Capparidales; dicotyledons; angiosperms; Spermatophyta; plants; Central  
Europe; Europe  
CT RHODOCOCUS FASCIANS; cauliflowers; plant pathogenic bacteria; plant  
pathology  
ORGN bacteria; Brassica oleracea var. botrytis

L1 ANSWER 67 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:71364 CABA  
DN 801364287  
TI Testing of plants suspected of **Corynebacterium fascians**  
infection  
Test pro vysetreni rostlin podezrelych z ochuraveni vyvolaneho  
*Corynebacterium fascians*  
AU Ulrychova, M.; Petru, E.; Jirsakova, E.  
CS Inst. Exp. Bot., Czechoslovak Acad. Sci., Prague, Czechoslovakia.  
SO Ochrana Rostlin, (1979) Vol. 15, No. 4, pp. 245-251. 3 fig., 1 tab. 15  
ref.  
DT Journal  
LA Czech  
SL Russian; English; German  
AB Sweet pea seedlings 4-6 days old were pricked twice with a sterile needle  
in the epicotyl near the cotyledons and potted in sterile soil, then  
sprayed with 0.5 ml of a homogenate suspension of fasciations from  
naturally infected plants. A soil layer c. 1 cm thick was added, keeping  
the tops of the plants above the surface. The pots were placed in a  
glasshouse and evaluation was made 4 weeks later. Typical malformations

developed on a significant number of plants.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology  
GT Czechoslovakia  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Lathyrus; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; Central Europe; Europe  
CT techniques; RHODOCOCCUS FASCIANS; sweet peas; plant pathogenic bacteria; plant pathology  
ST detecting; test plant  
ORGN bacteria; Lathyrus odoratus

L1 ANSWER 68 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:71338 CABA  
DN 801364226  
TI Cytokinin production by microorganisms  
AU Greene, E. M.  
CS Univ. Wisconsin, Madison, USA.  
SO Botanical Review, (1980) Vol. 46, No. 1, pp. 25-74. 1 fig., 3 tab. 236 ref.  
ISSN: 0006-8101  
DT Journal  
LA English  
SL German  
AB This review deals with the excretion of cytokinins by **Corynebacterium fascians**, Agrobacterium tumefaciens, Rhizobium spp., Pseudomonas savastanoi, leaf nodule endophytes, other bacteria, ectomycorrhizal fungi and other fungi. Indirect evidence for cytokinin production by endophytes of nonleguminous root nodules, Plasmodiophora brassicae, rusts and mildews is also discussed, followed by reports of these substances in transfer RNA of all the organisms so far examined.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT plant growth regulators; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; fungi; Rhizobiaceae; Gracilicutes; Plasmodiophora; Plasmodiophorales; Myxomycota  
CT reviews; cytokinins; RHODOCOCCUS FASCIANS; mycorrhizal fungi; plant pathogenic bacteria; plant pathology  
ST Cytokinin production by micro-organisms; micro-organisms, review; Pseudomonas savastanoi  
ORGN Rhizobium; Plasmodiophora brassicae; bacteria

L1 ANSWER 69 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:70190 CABA  
DN 801362354  
TI On the role of bacterial pathogens in Pelargonium  
Zur Rolle bacterieller Krankheitserreger an Pelargonien  
AU Brother, H.  
CS Zent. Staatl. Amt fur Pflanzenschutz u. Pflanzenquarantane, Minist. Land-, Forst- und Nahrungsguterwirtschaft, German Democratic Republic.  
SO Nachrichtenblatt fur den Pflanzenschutz in der DDR, (1979) Vol. 33, No. 11, pp. 225-228. 4 fig. 5 ref.  
DT Journal  
LA German  
SL English; Russian  
AB The importance of **Corynebacterium fascians** has decreased due to improved cultural and sanitary measures. Xanthomonas pelargonii causes stem rot. Plant damage can be prevented by using healthy plant material, effective hygiene, and physical and chemical control.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

GT German Democratic Republic; Germany  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Geraniaceae; Gerinales; dicotyledons; angiosperms; Spermatophyta; Central Europe; Europe; Western Europe  
CT RHODOCOCCUS FASCIANS; ornamental plants; plant pathogenic bacteria; plant pathology  
ST Xanthomonas pelargonii  
ORGN Pelargonium; bacteria

L1 ANSWER 70 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:66977 CABA  
DN 791357809  
TI Tumours of begonia and some other ornamentals, induced by **Corynebacterium fascians**  
AU Hoof, H. A. Van; Huttinga, H.; Knaap, A.; Maas Geesteranus, H. P.; Mosch, W. H. M.; Raay-Wieringa, D. G. J. de  
CS Res. Inst. Pl. Prot., Wageningen, Netherlands.  
SO Netherlands Journal of Plant Pathology, (1979) Vol. 85, No. 3, pp. 87-98.  
7 fig., 2 tab. 15 ref.  
ISSN: 0028-2944  
DT Journal  
LA English  
SL Dutch  
AB In 1975 many tumours were observed on the root collars of begonia cv. Schwabenland at Aalsmeer. Submerging roots of Nicotiana megalosiphon seedlings in a homogenate of the tumour tissue induced tumours after 2 weeks. The homogenates lost their infectivity after 10 min at 50 deg C. The causal agent was transmitted by aphids (Myzus persicae, M. ascalonicus and M. ornatus) but no virus or viroid could be isolated. Filtration through a 450 nm filter removed the agent. Cultures of C. fascians, isolated from tumours of N. megalosiphon, were highly infectious and induced tumours in healthy N. megalosiphon and begonia. Tumour tissue homogenates of Pelargonium, dahlia, Gladiolus and lily also caused tumours on N. megalosiphon from which the bacterium was isolated.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT Netherlands  
BT plants; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Begoniaceae; Violales; dicotyledons; angiosperms; Spermatophyta; Compositae; Asterales; Iridaceae; Liliales; monocotyledons; Geraniaceae; Gerinales; Liliaceae; Sternorrhyncha; Homoptera; Hemiptera; insects; arthropods; invertebrates; animals; Western Europe; Europe  
CT ORNAMENTAL PLANTS; RHODOCOCCUS FASCIANS; transmission; plant pathogenic bacteria; plant pathology  
ST Corynebacterium fasciens; Nicotiana megalosiphon; can infect  
ORGN Begonia; Dahlia; Gladiolus; Pelargonium; Lilium; Aphidoidea; bacteria

L1 ANSWER 71 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:15646 CABA  
DN 800384607  
TI Recent observations on leafy gall in Liliaceae and some other families  
AU Miller, H. J.; Janse, J. D.; Kamerman, W.; Muller, P. J.  
CS Plantenziektenkundige Dienst, 6700 HC Wageningen, Netherlands.  
SO Netherlands Journal of Plant Pathology, (1980) Vol. 86, No. 2, pp. 55-68.  
8 pl. 23 ref.  
ISSN: 0028-2944  
DT Journal  
LA English  
SL Dutch  
AB **Corynebacterium fascians**, which normally causes leaf galls, was shown to be responsible for unusual symptoms found recently in

lilies (chiefly in the bulblets) and known in Dutch as 'Woekerziekte'. The scales were deformed, sometimes pointed or rounded and were present in larger numbers than normal. Beneath these clusters a thickened ridge of yellowish gall-like tissue was often found. Diseased bulblets usually had reduced root growth. They were found over the whole length of the underground stem but occurred most frequently just under the soil surface. During field observations abnormal growth was not reported in bulblets formed in the leaf axils of the aerial parts of the stem. A number of lily cvs, including the Mid-Century cv. Enchantment, have shown symptoms and during the last 2 years *C. fascians* has also been found on *Brodiaea laxa*, *Euphorbia pulcherrima*, *Hebe andersonii*, *Kalanchoe blossfeldiana* and *Verbascum nigrum*. [See also HcA 49, 5154].

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT Netherlands  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Crassulaceae; Rosales; dicotyledons; angiosperms; Hebe; Scrophulariaceae; Scrophulariales; Liliaceae; Liliales; monocotyledons; Euphorbiaceae; Euphorbiales; Alliaceae; Euphorbia; Triteleia; Western Europe; Europe  
CT RHODOCOCUS FASCIANS; poinsettias; diseases; hosts; ornamental plants; ornamental bulbs; plant pathogenic bacteria; plant pathology  
ST Brodiaea laxa; Verbascum nigrum; Netherlands, symptoms  
ORGN kalanchoe; Hebe andersonii; Lilium; Euphorbia; Brodiaea; Hebe; Verbascum; bacteria; Euphorbia pulcherrima; TRITELEIA LAXA

L1 ANSWER 72 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:13267 CABA  
DN 800383417  
TI The role of bacterial pathogens in pelargoniums  
Zur Rolle bakterieller Krankheitserregers an Pelargonien  
AU Brother, H.  
CS Zentrales Staatliches Amt fur Pflanzenschutz, 15 Potsdam, German Democratic Republic.  
SO Nachrichtenblatt fur den Pflanzenschutz in der DDR, (1979) Vol. 33, No. 11, pp. 225-228. 4 pl. 5 ref.  
DT Journal  
LA German  
SL English; Russian  
AB The economic importance and symptoms of infection by *Corynebacterium fascians* and *Xanthomonas pelargonii* are described and discussed. The importance of *C. fascians* has declined in recent years because of improved cultivation practices and hygiene. Infection with *X. pelargonii* appears as stem rot. Damage to pelargoniums can be prevented by: propagation by seed or meristem culture; using disease-free mother plants for vegetative propagation; soil disinfection with formaldehyde preparations; ensuring plant health by suitable NPK applications and optimum soil pH values (5 to 6.5); and spraying, as required, with Spritz-Cupral 45, captan or a sulphur preparation.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT dicarboximide fungicides; fungicides; pesticides; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geriales; dicotyledons; angiosperms  
CT Captan; SULFUR; diseases; RHODOCOCUS FASCIANS; ornamental plants; ornamental herbaceous plants  
ST Xanthomonas pelargonii; Spritz-Cupral 45  
RN 133-06-2; 7704-34-9  
ORGN pelargonium

L1 ANSWER 73 OF 284 CABA COPYRIGHT 2001 CABI

AN 79:65265 CABA  
DN 791356568  
TI Identification of plant pathogenic bacteria  
De identificatie van plantepathogene bacterien  
AU Miller, H. J.  
CS Plantenziektenkundige Dienst, Wageningen, Netherlands.  
SO Gewasbescherming, (1978) Vol. 9, No. 4, pp. 75-80. 3 fig.  
ISSN: 0166-6495  
DT Journal  
LA Dutch  
AB Symptoms, morphological characteristics, opt. growth temp., biochemical and pathogenicity assays, the use of bacteriophages and serological investigations are discussed with reference to *Agrobacterium radiobacter* var. *tumefaciens* [*A. tumefaciens*], ***Corynebacterium fascians*** and *Erwinia herbicola*.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology  
BT bacteria; prokaryotes; *Rhodococcus* (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; *Agrobacterium*; Rhizobiaceae; Gracilicutes; *Erwinia*; Enterobacteriaceae  
CT techniques; plant pathogenic bacteria; RHODOCOCUS FASCIANS; plant pathology  
ST identifying  
ORGN *Agrobacterium tumefaciens*; *Erwinia herbicola*; bacteria

L1 ANSWER 74 OF 284 CABA COPYRIGHT 2001 CABI  
AN 78:102054 CABA  
DN 781940926  
TI The survival of coryneform bacteria during periods of prolonged nutrient starvation  
AU Boylen, C. W.; Mulks, M. H.  
CS Department of Biology, Rensselaer Polytechnic Institute, Troy, New York 12181, USA.  
SO Journal of General Microbiology, (1978) Vol. 105, No. 2, pp. 323-334. 49 ref.  
ISSN: 0022-1287  
DT Journal  
LA English  
AB Cultures of 16 coryneform bacteria were grown to late-exponential stage in nutrient media, washed, and starved in 30 mM-potassium phosphate buffer pH 7.0, with no external energy or carbon source. After 4 weeks starvation, 20 to 98% of each culture was still viable; after 8 weeks, 5 to 70% of each culture was still viable. Little change in cell shape or size was detected in *Arthrobacter globiformis*, *A. nicotianae*, *Brevibacterium linens*, ***Corynebacterium fascians***, *Mycobacterium rhodochrous* and *Nocardia roseum* when studied by electron microscopy for up to 56 d, although there was a gradual disappearance of intracellular material. No resting structures were discernible. All organisms showed an immediate decrease in endogenous respiration to less than 1% of that observed during growth. A low basal level of endogenous metabolism equivalent to 0.01 to 0.03% of cellular carbon oxidized to CO<sub>2</sub>h-1 was maintained for 56 d. Carbohydrate, intracellular pools, protein, ribonucleic acid and deoxyribonucleic acid were utilized at varying rates by different organisms during this period. All species were effective in maintaining 20 to 70% of their Mg<sup>2+</sup> content during a 28 d starvation period in the absence of any external Mg<sup>2+</sup>. It would appear that the soil coryneform bacteria possess similar survival characteristics, which could explain, in part, their ecological success in natural environments.  
CC ZZ400 Environmental Sciences (General); PP600 Pollution and Degradation; JJ100 Soil Biology; FF600 Pests, Pathogens and Biogenic Diseases of Plants

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes  
CT RHODOCOCCUS FASCIANS; survival; plant pathogenic bacteria; plant pathology  
ST coryneform; survival in soil; bacteria, coryneform  
ORGN bacteria

L1 ANSWER 75 OF 284 CABA COPYRIGHT 2001 CABI  
AN 78:66540 CABA  
DN 781349754  
TI Health selection of Pelargonium and Begonia X Elatior "Rieger" cuttings with respect to bacterioses, using immunofluorescence  
Selection sanitaire des boutures de Pelargonium et de Begonia X Elatior "Rieger" vis-a-vis des bacterioses par utilisation de l'immunofluorescence  
AU Digat, B.  
CS Centre de Recherches Agronomiques d'Angers, INRA, Angers, France.  
SO Annales de Phytopathologie, (1978) Vol. 10, No. 1, pp. 67-78. 4 fig., 2 tab. 22 ref.  
DT Journal  
LA French  
SL English  
AB Antisera against *Xanthomonas pelargonii* and *X. begoniae* were prepared from glycoprotein extracts, those against ***Corynebacterium fascians*** from conc. whole cell suspensions. Procedures of injection into rabbits and kinetics of the synthesis of antibodies are described. The results showed the close specificity and the high titre of the antisera obtained. The margin of error seemed to be between 0.2 and 0.5% for pelargonium stems with respect to *X. pelargonii*. *X. begoniae* was detected more often on begonia leaf blades than in the corresponding petioles. *X.* and *C. fascians* could be detected simultaneously on the same sample.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; FF160 Plant Propagation  
GT France  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geraniales; dicotyledons; angiosperms; Begoniaceae; Violales; Pseudomonadaceae; Gracilicutes; Western Europe; Europe; Mediterranean Countries  
CT RHODOCOCCUS FASCIANS; diseases; cuttings; sources; ornamental plants; ornamental bulbs; plant pathogenic bacteria; ornamental herbaceous plants; plant pathology  
ST *Xanthomonas pelargonii*; serological detection; *Xanthomonas begoniae*  
ORGN Pelargonium; Begonia; *Xanthomonas*; bacteria

L1 ANSWER 76 OF 284 CABA COPYRIGHT 2001 CABI  
AN 78:62109 CABA  
DN 781341692  
TI In vivo and in vitro interactions between *Agrobacterium tumefaciens* and ***Corynebacterium fascians***  
AU El-Goorani, M. A.; Abo-El-Dahab, M. K.; El-Wakil, M. A.  
CS Alexandria Univ., Egypt.  
SO Plant Disease Reporter, (1977) Vol. 61, No. 11, pp. 963-967. 2 fig., 1 tab. 17 ref.  
DT Journal  
LA English  
AB When *Datura innoxia* stems were inoculated with a mixture of the bacteria no leafy gall symptoms were observed within 30 days. All plants inoculated with the mixed inocula or with *A. tumefaciens* alone developed crown gall symptoms. In vitro tests revealed no antagonism between the bacteria. *A. tumefaciens* grows faster than *C. fascians*; the av. generation time for the

former was c. 3.5 h and for the latter c. 6 h. This growth advantage would allow *A. tumefaciens* to establish preferentially in culture. *C. fascians* alone appeared to be able to grow continuously inside *D.* stems; with the interference of *A. tumefaciens* however, growth of *C. fascians* could not be freely established. This is the first record of an interaction between the 2 organisms.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Agrobacterium; Rhizobiaceae; Gracilicutes; Datura; Solanaceae; Solanales; dicotyledons; angiosperms; Spermatophyta; plants  
CT interactions; RHODOCOCCUS FASCIANS; plant pathogenic bacteria; plant pathology  
ST *Datura innoxia*; *Agrobacterium tumefaciens* + ***Corynebacterium fascians***  
ORGN *Agrobacterium tumefaciens*; bacteria; DATURA FASTUOSA

L1 ANSWER 77 OF 284 CABA COPYRIGHT 2001 CABI  
AN 78:61087 CABA  
DN 771340153  
TI The pathogens of diseases of soybean in the Khabarovsk region  
O vozбудителъях заболеваний сои в Хабаровском крае  
AU Oksent'yan, U. G.  
SO Tr. VNII Mikrobiol. Sredstv Zashchity Rast. i Bakter. Preparatov, (1976)  
No. 4, pp. 127-131.  
Secondary Source: Referativnyi Zhurnal, Biologiya (1977) 7 L 680  
DT Journal  
LA Russian  
AB Isolates from soybean stems were morphologically, culturally and  
biochemically similar to ***Corynebacterium fascians***.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT USSR  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants  
CT soyabeans; RHODOCOCCUS FASCIANS; grain legumes; plant pathogenic bacteria; plant pathology  
ORGN bacteria; Glycine (Leguminosae)

L1 ANSWER 78 OF 284 CABA COPYRIGHT 2001 CABI  
AN 78:60589 CABA  
DN 771339383  
TI Bacterial fasciation of *Pelargonium hortorum* in Hungary  
AU Sule, S.  
CS Res. Inst. Pl. Prot., Budapest, Hungary.  
SO Acta Phytopathologica Academiae Scientiarum Hungaricae, (1976) Vol. 11,  
No. 3/4, pp. 223-230. 4 fig. 17 ref.  
DT Journal  
LA English  
AB This disease was found in Hungary in 1972 and symptoms included the  
occurrence of numerous short, thick and aborted new shoots or galls near  
the soil or at cutting wounds. Tests indicated that the causal organism  
was ***Corynebacterium fascians***, which was also  
pathogenic to sweet pea.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT Hungary  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; *Pelargonium*; Geraniaceae; Geriales; dicotyledons; angiosperms; Spermatophyta; Central Europe; Europe  
CT RHODOCOCCUS FASCIANS; ornamental plants; plant pathogenic bacteria; plant pathology

ORGN *Pelargonium hortorum*; bacteria

L1 ANSWER 79 OF 284 CABA COPYRIGHT 2001 CABI  
AN 78:52134 CABA  
DN 770840205  
TI Review of Soviet literature on plant parasitic nematodes associated with strawberries  
AU Szczygiel, A.  
SO Review of Soviet literature on plant parasitic nematodes associated with strawberries, (1977) pp. 63. Completed under Project No. PL-ARS-12 Grant No. FG-PO-289.  
CY Brzezna: Research Institute of Pomology Experimental Station, Brzezna  
Poland  
DT Miscellaneous  
LA English  
AB Research conducted in the USSR since 1950 on *Aphelenchoides fragariae*, *A. ritzemabosi*, *Ditylenchus dipsaci* and root-parasitic nematodes on strawberry is comprehensively reviewed. The geographical distribution, alternate hosts, plant disease symptoms and internal changes, cultivar susceptibility, population dynamics and persistence are detailed for both *Aphelenchoides* spp. (found living ectoparasitically on buds and leaves) and *Ditylenchus dipsaci* (in leaf petioles, stolons, leaves and inflorescences), as are the economic consequences, means of dispersal and general biology. The host ranges of both *Aphelenchoides* spp. include many weeds of meadow and woodland with *A. fragariae* occurring more often in the USSR than *A. ritzemabosi*. The interaction between *Aphelenchoides* and ***Corynebacterium fascians*** is detailed and the concept of different races of *D. dipsaci* is discussed, the differences in chromosome shape between nematodes from various plant hosts providing evidence for the existence of such races. Hot-water treatment, methyl bromide fumigation and chemical sprays for control of *Aphelenchoides* spp. and various methods of plant disinfection and soil treatment for controlling *D. dipsaci* are reviewed. The geographical distribution, population dynamics, host damage and chemical control of migratory root-parasitic nematodes associated with strawberry in the USSR are also briefly reviewed. These include *Helicotylenchus multicinctus*, *Tylenchorhynchus dubius*, *Rotylenchus robustus*, *Pratylenchus penetrans*, *Tylenchus agricola* and *Tetylenchus clavicaudatus*. Methods of recovery of nematodes from strawberry are succinctly discussed. 98 references are cited.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT USSR  
BT invertebrates; animals; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants  
CT strawberries; reviews; plant nematology; nematology  
ORGN Nematoda; *Fragaria*

L1 ANSWER 80 OF 284 CABA COPYRIGHT 2001 CABI  
AN 77:99823 CABA  
DN 771938088  
TI Zeatin ribonucleosides in the transfer ribonucleic acid of *Rhizobium leguminosarum*, *Agrobacterium tumefaciens*, ***Corynebacterium fascians***, and *Erwinia amylovora*  
AU Cherayil, J. D.; Lipsett, M. N.  
CS Lab. of Biochemistry and Metabolism, National Inst. of Arthritis, Metabolism and Digestive Diseases, Bethesda, Maryland 20014, USA. (M.N.L.).  
SO Journal of Bacteriology, (1977) Vol. 131, No. 3, pp. 741-744. 18 ref.  
ISSN: 0021-9193  
DT Journal  
LA English

AB Until recently, the presence in transfer ribonucleic acid (tRNA) of ribosylzeatin was thought to be unique to higher plants. This extension of work from several laboratories indicates the presence of 2-methylthioribosylzeatin in the tRNA of the plant-associated bacteria *Rhizobium leguminosarum*, *Agrobacterium tumefaciens*, and ***Corynebacterium fascians***, but not in that of *Erwinia amylovora*. This cytokinin has the cis configuration, as is normally found in the tRNA's of plants. The tRNA thionucleotide patterns in these bacteria are different from those of *E.coli*, *Bacillus subtilis*, and *Salmonella typhimurium*.

CC FF040 Plant Composition; FF060 Plant Physiology and Biochemistry; JJ100 Soil Biology; FF600 Pests, Pathogens and Biogenic Diseases of Plants

BT *Rhodococcus* (bacteria); *Nocardiaceae*; *Actinomycetales*; Firmicutes; bacteria; prokaryotes; plant growth regulators; *Rhizobium*; *Rhizobiaceae*; *Gracilicutes*; *Agrobacterium*; *Erwinia*; *Enterobacteriaceae*

CT RHODOCOCUS FASCIANS; cytokinins; plant pathogenic bacteria; plant pathology

ST ribosylzeatin content; cytokinin content; PGRA

ORGN bacteria; *Rhizobium leguminosarum*; *Agrobacterium tumefaciens*; *Erwinia amylovora*

L1 ANSWER 81 OF 284 CABA COPYRIGHT 2001 CABI  
AN 77:63301 CABA  
DN 771338986  
TI Root galls on raspberry  
AU Jones, G. E.; Catton, F. W.; Bateson, M.  
CS ADAS, Cambridge, UK.  
SO Plant Pathology, (1977) Vol. 26, No. 2, pp. 96-97.  
ISSN: 0032-0862  
DT Journal  
LA English  
AB ***Corynebacterium fascians*** was isolated from an unusual type of root gall found on 3 raspberry cvs. propagated at 2 different sites in Scotland, and is believed to constitute a new British record. ADDITIONAL ABSTRACT: Glen Isla, Glen Clova and Malling Delight were found to be infected by ***Corynebacterium fascians***. Although galls were also found on Leo, *C. fascians* was not isolated.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; FF020 Plant Breeding and Genetics; HH600 Host Resistance and Immunity

GT UK

BT *Rhodococcus* (bacteria); *Nocardiaceae*; *Actinomycetales*; Firmicutes; bacteria; prokaryotes; *Corynebacteriaceae*; coryneform group of bacteria; *Rubus*; *Rosaceae*; *Rosales*; dicotyledons; angiosperms; *Spermatophyta*; plants; British Isles; Western Europe; Europe

CT raspberries; RHODOCOCUS FASCIANS; fruit crops; plant pathogenic bacteria; plant pathology

ST new records, host

ORGN *Corynebacterium*; bacteria; *Rubus idaeus*; *Rubus*

L1 ANSWER 82 OF 284 CABA COPYRIGHT 2001 CABI  
AN 77:63134 CABA  
DN 771337447  
TI Effect of three nematicides on the growth of some phytopathogenic bacteria and fungi

AU El-Khadem, M.; Mehiar, F.; Embabi, M. S.  
CS Fac. Agric., Tanta Univ., Kafr El-Sheikh, Egypt.  
SO Zentralblatt fur Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene, 2, (1977) Vol. 132, No. 4, pp. 369-376. 5 fig. 12 ref.  
DT Journal  
LA English

SL German  
AB Aldicarb, fensulfothion, and phenamiphos at 1, 5 and 125 ppm were tested against *Agrobacterium tumefaciens*, ***Corynebacterium fascians***, *Erwinia carotovora* [var. *carotovora*], *Pseudomonas solanacearum*, *Streptomyces scabies*, *Fusarium oxysporum* f.sp. *vasinfectum*, *F. solani*, *Rhizoctonia solani* and *Sclerotium bataticola* [Macrophomina *phaseolina*]. Of the bacteria, *P. solanacearum* was most severely inhibited by the chemicals at all concs. The effect on the fungi varied greatly, *F. solani* and *R. solani* generally being most affected, followed by *F. oxysporum*. Fensulfothion was the most effective nematicide against the bacteria and phenamiphos, followed by fensulfothion, against the fungi.  
ADDITIONAL ABSTRACT: Aldicarb, fensulphothion and phenamiphos were tested against bacteria and fungi.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH400 Control by Chemicals and Drugs; HH000 Pathogen, Pest and Parasite Management (General)  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; pesticides; oxime carbamate insecticides; carbamate insecticides; carbamate pesticides; insecticides; organothiophosphate insecticides; organophosphorus insecticides; organophosphate nematicides; organophosphorus nematicides; nematicides; Nematoda; invertebrates; animals; *Agrobacterium*; Rhizobiaceae; Gracilicutes; *Pseudomonas*; *Pseudomonadaceae*; *Streptomyces*; *Streptomycetaceae*; *Fusarium oxysporum*; *Fusarium*; Deuteromycotina; Eumycota; fungi; *Rhizoctonia*; Macrophomina  
CT RHODOCOCCUS FASCIANS; effects; nematicides; aldicarb; fensulfothion; FENAMIPHOS; plant parasitic nematodes; plant nematology; control; nematology; plant pathogenic bacteria; plant pathology  
ST *Erwinia carotovora* var. *carotovora*; plant pathogenic bacteria and fungi; fensulphothion  
RN 116-06-3; 115-90-2; 22224-92-6  
ORGN *Agrobacterium tumefaciens*; *Pseudomonas solanacearum*; *Streptomyces scabies*; *Fusarium oxysporum* f.sp. *vasinfectum*; *Fusarium solani*; *Rhizoctonia solani*; Macrophomina *phaseolina*; bacteria  
  
L1 ANSWER 83 OF 284 CABA COPYRIGHT 2001 CAB  
AN 77:59459 CABA  
DN 771333315  
TI Cytokinins in ***Corynebacterium fascians*** cultures.  
Isolation and identification of 6-(4-hydroxy-3-methyl-cis-2-butenylamino)-2-methylthiopurine  
AU Armstrong, D. J.; Scarbrough, E.; Skoog, F.; Cole, D. L.; Leonard, N. J.  
CS Inst. Pl. Developm., Birge Hall, Univ. Wisconsin, Madison, Wis., USA.  
SO Plant Physiology, (1976) Vol. 58, No. 6, pp. 749-752. 2 fig., 2 tab. 28 ref.  
ISSN: 0032-0889  
DT Journal  
LA English  
AB In addition to the 4 cytokinins and the cis and trans isomers of purine, reported earlier, 3 cytokinin-active fractions were obtained from the aqueous medium of 6-day-old *C. fascians* cultures. One of these was identified. The elution vols. of the other 2 fractions indicate trace amounts of 2 ribonucleosides.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plant growth regulators  
CT RHODOCOCCUS FASCIANS; cytokinins; plant pathogenic bacteria; plant pathology  
ORGN bacteria

L1 ANSWER 84 OF 284 CABA COPYRIGHT 2001 CAB

AN 77:58922 CABA  
DN 761332529  
TI Bacteria - the pathogens of pathological tumours on plants as the  
producers of biologically active substances  
Bakterii - vozluditeli patologicheskikh novoobrazovanii u rastenii kak  
produtsenty biologicheskikh aktivnykh veshchestv  
AU Galach'yan, R. M.; Davlyan, A. R.  
SO Probl. onkol. i teratol. rastenii, (1975) pp. 42-45.  
Publisher: Nauka. L[eningrad]  
Secondary Source: Referativnyi Zhurnal, Biologiya (1976) 8 L 599  
CY USSR  
DT Miscellaneous  
LA Russian  
AB Auxins, gibberellins and similar substances were established in  
metabolites of *Xanthomonas beticola*, *Agrobacterium tumefaciens* and  
***Corynebacterium fascians***.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; *Agrobacterium*; Rhizobiaceae; Gracilicutes  
CT RHODOCOCCUS FASCIANS; growth regulators; plant pathogenic bacteria; plant  
pathology  
ST *Xanthomonas beticola*  
ORGN *Agrobacterium tumefaciens*; bacteria

L1 ANSWER 85 OF 284 CABA COPYRIGHT 2001 CABI  
AN 77:57420 CABA  
DN 761330058  
TI Mechanism of D-alanine production by ***Corynebacterium***  
***fascians***  
AU Yamada, S.; Wada, M.; Izuo, N.; Chibata, I.  
CS Tanabe Seiyaku Co. Ltd., Yodogawa-ku, Osaka, Japan.  
SO Applied and Environmental Microbiology, (1976) Vol. 32, No. 1, pp. 1-6. 2  
graphs, 6 tab.  
ISSN: 0099-2240  
DT Journal  
LA English  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes  
CT RHODOCOCCUS FASCIANS; plant pathogenic bacteria; plant pathology  
ST D-alanine production  
ORGN bacteria

L1 ANSWER 86 OF 284 CABA COPYRIGHT 2001 CABI  
AN 77:15865 CABA  
DN 770352062  
TI New aspects of the control of geranium bacterial diseases  
Aspects nouveaux en matiere de lutte contre les bacterioses du pelargonium  
AU Digat, B.  
CS INRA, Station de Pathologie Vegetale et Phytobacteriologie, 49-Beaucouze,  
Angers, France.  
SO Pepinieristes Horticulteurs Maraichers, (1977) No. 174, pp. 17-23. 7  
col.pl., 2 fig. 15 ref.  
DT Journal  
LA French  
AB A review and discussion. *Pelargonium X hortorum* and *P. X hederaefolium* are  
the most important commerical pot plants in France and West Germany, with  
some 40-50 million plants sold each year. *Xanthomonas pelargonii* and  
***Corynebacterium fascians*** can cause heavy losses. The  
symptoms of both diseases are described and illustrated. Sanitary

prevention is better than control. Methods of detection, enabling continuous checking for both diseases, are outlined.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology

GT France

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Geriales; dicotyledons; angiosperms; Western Europe; Europe; Mediterranean Countries

CT RHODOCOCUS FASCIANS; diseases; techniques; ornamental plants; ornamental herbaceous plants; plant pathogenic bacteria; plant pathology

ST Xanthomonas pelargonii; detecting; bacteria in Pelargonium

ORGN pelargonium; bacteria

L1 ANSWER 87 OF 284 CABA COPYRIGHT 2001 CABI

AN 76:67540 CABA

DN 761332079

TI Flower disease investigations in 1975  
Bloemisterij onderzoek in Nederland over 1975

AU Rattink, H.; Hakkaart, F. A.; Beuzenberg, M. P.; Hoof, H. A. Van; Steekelenburg, N. A. M. Van; Runia, W. T.

CS Netherlands, Proefstation voor de Bloemisterij; Linnaeuslaan 2a, Aalsmeer, Netherlands.

SO Bloemisterij onderzoek in Nederland over 1975, (1976) pp. 222. Illus. See RPP 55, 4738.

Publisher: Proefstation voor de Bloemisterij. Aalsmeer

CY Netherlands Antilles

DT Report; Company Publication

LA Dutch

AB A continuation of 'Jaarverslag van het Proefstation voor de Bloomisterij'. Disease studies are mostly arranged in alphabetical order of the hosts. Some of the information has already been noticed. H. Rattink (48-53, 2 fig., 7 tab.) summarized results of investigations on *Fusarium oxysporum* and *F. [o. var.] redolens* on carnations. F.A. Hakkaart (67-68, 1 fig.) reports on the identification of dasheen mosaic virus in diseased Dieffenbachia plants by means of the indicator *Philodendron selloum*. Rattink (69-70) serologically identified *Xanthomonas begoniae* on begonia and showed that proliferations on the soil-covered stems were caused by *Corynebacterium fascians*. M.P. Beuzenberg (70-74) tested plant protectants on mother plants and cuttings of begonia. H.A. Van Hoof (87-88) reports tomato black ring virus on *Campanula mayii*. N.A.M. Van Steekelenburg (91) obtained best control of *Didymella chrysanthemi* [*Mycosphaerella ligulicola*] on chrysanthemum with mancozeb at 0.24% a.i., applied either before or after infection, and chlorothalonil before infection. W.T. Runia (92) investigated the effect of chrysanthemum stunt virus on *Compositae*. Beuzenberg (102-103) controlled root rot (*Cylindrocarpon*, *Thielaviopsis* and *Pythium*) on *Aralia elegantissima* with aaterra + benlate (each 125 g/m<sup>3</sup>) mixed in the potting soil amended with charcoal. Against *Alternaria raphani* mancozeb at 3 g/l water, applied every 2 weeks avoiding the foliage, was most effective. Hakkaart (159-161) describes the diagnosis of pelargonium viruses on detached leaves of *Chenopodium quinoa* and the elimination of viruses by meristem tip culture and thermotherapy. Beuzenberg (184-185) reports that in trials against powdery mildew [*Sphaerotheca pannosa*] on rose, wepsyn had a good curative and a long lasting prophylactic effect, especially during dry, sunny weather. ADDITIONAL ABSTRACT: Pp. 217-218. Weed control in crops under glass. Treatments discussed include pre-planting treatment and overall spraying of chrysanthemums with propyzamide at 1 and 3 kg/ha, which caused no injury to the treated or the following crop and pre-planting treatment of bedding plants with monamide[?], simazine, propachlor or chloroxuron

which were better tolerated than post-planting treatment with chloroxuron. *Oxalis acetosella* [?], an increasingly troublesome weed in glasshouses, was not satisfactorily controlled by simazine, chloroxuron or propyzamide; control with repeated applications of paraquat, diquat or glyphosate was good but was not selective to the crop plants. ADDITIONAL ABSTRACT: This report, replacing the earlier annual report of the Experimental Station for Floriculture at Aalsmeer [see HcA 46, 5898], includes the results of research carried out at other centres in the Netherlands. Progress is reported on the following ornamental crops: *Alstroemeria*: The effects of lighting on flowering of cv. *Orchid*; shoot thinning for cv. *Regina*; and short-day treatment for cv. *Orchid*. *Anthurium*: NK fertilization trials, spacings, selection for flower production; and tissue culture for *A. andeanum*; and temperature requirements and sources of irrigation water for *A. scherzerianum*. *Araceae*: Virus diseases of *Dieffenbachia* and related aroids. *Asparagus plumosus*: Sources of irrigation water. *Azalea*: Foot- and root-rots (*Cylindrocladium scoparium*); chemical pruning; and advancing flowering by the use of growth regulators. *Begonia*: Bacterial diseases; plant responses to fungicides and insecticides; new cvs; temperature requirements; breeding and selection of *Elatior* begonias; soil pH requirements of cv. *Schwabenland*; and propagation by cuttings. *Bromeliads*: NPK fertilization for *Vriesea splendens*; and control of *Rhizoecus* spp. on bromeliad roots. *Browallia speciosa*: Variety trials. *Calceolaria*: Breeding and selection of *C. multiflora*. *Campanula*: Studies on tomato black ring virus. *Carnation*: Variety trials; flowering responses to lighting; studies on photosynthesis; soil disinfection for controlling *Fusarium* spp.; effect of virus disease on flower colour; natural mutation in cv. *Arthur Sim*; relative costs of growing media; regulation of flowering peaks; studies on virus diseases; control of wilt (*Fusarium* spp.) diseases; sources and salinity of irrigation water; and transport of cut flowers.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH000 Pathogen, Pest and Parasite Management (General); AA000 Agriculture (General)

GT Netherlands

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; dithiocarbamate fungicides; carbamate pesticides; pesticides; fungicides; aromatic fungicides; benzimidazole fungicides; phenylurea herbicides; urea herbicides; herbicides; quaternary ammonium herbicides; organophosphorus herbicides; chloroacetanilide herbicides; anilide herbicides; amide herbicides; triazine herbicides; plants; *Fusarium*; *Deuteromycotina*; *Eumycota*; fungi; *Fusarium oxysporum*; *Araceae*; *Arales*; monocotyledons; angiosperms; *Spermatophyta*; *Begoniaceae*; *Violales*; dicotyledons; *Compositae*; *Asterales*; *Alternaria*; *Geraniaceae*; *Geriales*; *Chenopodium*; *Chenopodiaceae*; *Caryophyllales*; *Sphaerotheca*; *Erysiphales*; *Ascomycotina*; *Oxalis*; *Oxalidaceae*; *Alstroemeriaeae*; *Liliales*; *Ericaceae*; *Ericales*; *Vriesea*; *Bromeliaceae*; *Bromeliales*; *Browallia*; *Solanaceae*; *Solanales*; *Scrophulariaceae*; *Scrophulariales*; *Campanulaceae*; *Campanulales*; *Cylindrocladium*; *Liliaceae*; *Dianthus*; *Caryophyllaceae*; *Rosaceae*; *Rosales*; potyvirus group; plant viruses; viruses; nepovirus group; *Didymella*; *Dothideales*; *Dizygotheca*; *Araliaceae*; *Apiales*; Western Europe; Europe

CT carnations; identification; *RHODOCOCCUS FASCIANS*; control; mancozeb; chlorothalonil; effects; diseases; benomyl; diagnosis; roses; chloroxuron; diquat; glyphosate; paraquat; propachlor; propyzamide; simazine; usage; crops; selectivity; ornamental plants; plant pathogenic bacteria; plant pathology

ST Res. Sta. flower diseases; study; dasheen mosaic virus; *Xanthomonas begoniae*; *Campanula mayii*; tomato black ring virus; *Mycosphaerella ligulicola*; *Chrysanthemum stunt virus*; *Aralia elegantissima*; *aatera*; *Aralia elegantissima* diseases; meristem culture; indicator; *Pelargonium* viruses; *wepsyn*; *Chrysanthemum (chrysanthemum)*; ornamental and turf; Bloemisterij onderzoek in Nederland; *plumosus*

RN 8018-01-7; 1897-45-6; 17804-35-2; 1982-47-4; 2764-72-9; 1071-83-6;

38641-94-0; 70393-85-0; 4685-14-7; 1910-42-5; 2074-50-2; 1918-16-7;  
23950-58-5; 122-34-9

ORGN Fusarium oxysporum; Fusarium oxysporum var. redolens; Dieffenbachia;  
Begonia; Chrysanthemum; Compositae; Alternaria raphani; Pelargonium;  
viruses; Chenopodium quinoa; Sphaerotheca pannosa; Oxalis acetosella;  
Alstroemeria; anthurium; Araceae; rhododendron; Vriesea splendens;  
Bromeliaceae; Browallia speciosa; calceolaria; Campanula; Cylindrocladium  
scoparium; Fusarium; asparagus; bacteria; Dianthus caryophyllus; Rosa;  
DASHEEN MOSAIC POTYVIRUS; TOMATO BLACK RING NEPOVIRUS; DIDYMELLA  
CHRYSANTHEMI; DIZYGOTHECA ELEGANTISSIMA

L1 ANSWER 88 OF 284 CABA COPYRIGHT 2001 CABI  
AN 76:64061 CABA  
DN 761325885  
TI Bacterial fasciation of gladiolus  
Bakterialni nadorovitost gladiolu  
AU Zacha, V.; Moravcik, E.  
CS Ustr. Kontr. Skuv. Ust. Pol'noh., Bratislava, Czechoslovakia.  
SO Ochrana Rostlin, (1975) Vol. 11, No. 2, pp. 163-164. 2 fig.  
DT Journal  
LA Czech  
AB The disease, caused by **Corynebacterium fascians**, is  
characterized by a large, fleshy, yellow-white swelling at the base of the  
corm. Growth of infected plants was retarded.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT Czechoslovakia  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; plants; Iridaceae; Liliales; monocotyledons;  
angiosperms; Spermatophyta; Central Europe; Europe  
CT RHODOCOCCUS FASCIANS; ornamental plants; plant pathogenic bacteria; plant  
pathology  
ORGN Gladiolus; bacteria

L1 ANSWER 89 OF 284 CABA COPYRIGHT 2001 CABI  
AN 76:14762 CABA  
DN 760339071  
TI Stimulation and inhibition reactions in plants infected by  
**Corynebacterium fascians** (Tilford) Dowson  
AU Roussaux, J.  
CS Universite Pierre et Marie Curie, 75005 Paris, France.  
SO Marcellia, (1975) Vol. 38, No. 4, pp. 305-310. 5 fig. 11 ref.  
DT Journal  
LA English  
SL French  
AB Stimulation and inhibition reactions are strongly intermixed during the  
development of witches' brooms on pea plants by *C. fascians*. This could be  
due to the differential sensitivities of normal morphogenetic mechanisms  
to the progressive accumulation of endogenous cytokinin in the host  
tissues.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT France  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; plant growth regulators; Leguminosae; Fabales;  
dicotyledons; angiosperms; Spermatophyta; plants; Western Europe; Europe;  
Mediterranean Countries  
CT RHODOCOCCUS FASCIANS; Cytokinins; PEAS; diseases; GROWTH REGULATORS; plant  
diseases; vegetables; vegetable legumes; grain legumes; plant pathogenic  
bacteria; plant growth regulators; plant pathology  
ST endogenous; reactions  
ORGN Leguminosae; bacteria

L1 ANSWER 90 OF 284 CABA COPYRIGHT 2001 CABI  
AN 76:14675 CABA  
DN 760338380  
TI Bud relationships in plants inoculated with **Corynebacterium fascians**  
Relations entre bourgeons dans les plantes inoculees avec  
**Corynebacterium fascians**  
AU Roussaux, J.; Hoffelt, M.  
CS Universite Pierre et Marie Curie, Paris, France.  
SO Canadian Journal of Botany, (1975) Vol. 53, No. 17, pp. 1934-1941. 1 pl.,  
2 fig. 12 ref.  
ISSN: 0008-4026  
DT Journal  
LA French  
SL English  
AB When witches' brooms were induced in pea seedlings by *C. fascians* inoculum  
after a systemic infection or a local infection at leaf axillae, no mutual  
inhibition was observed between shoots stimulated by bacteria. The growth  
of these abnormal shoots was reduced and finally ceased. This was not  
determined by a trophic competition but by an accumulation of inhibitors  
in buds. During their development witches' brooms inhibited healthy buds  
of the host by a deviation of nutrients from their normal destination, as  
was shown by the repartition of  $^{32}P$  in inoculated plants.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT France  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms;  
Spermatophyta; plants; Western Europe; Europe; Mediterranean Countries  
CT RHODOCOCUS FASCIANS; PEAS; diseases; buds; vegetables; vegetable legumes;  
grain legumes; plant pathogenic bacteria; plant pathology  
ORGN Leguminosae; bacteria

L1 ANSWER 91 OF 284 CABA COPYRIGHT 2001 CABI  
AN 76:7890 CABA  
DN 750332843  
TI Altered levels of indoleacetic acid and cytokinin in geranium stems  
infected with **Corynebacterium fascians**  
AU Balazs, E.; Sziraki, I.  
CS Research Institute for Plant Protection, Budapest, Hungary.  
SO Acta Phytopathologica Academiae Scientiarum Hungaricae, (1974) Vol. 9, No.  
3/4, pp. 287-292. 19 ref.  
DT Journal  
LA English  
AB Tumour tissues of leafy galls of geranium cv. Irene infected with *C. fascians*  
contained less IAA and showed increased cytokinin activity in  
tissue culture bioassay compared with healthy stem tissues. Three active  
compounds, chromatographically similar to zeatin, zeatinriboside and N6(  
DELTA 2-isopentenyl)-adenine were present both in healthy and infected  
stems. Tumour tissues of leafy galls contained an additional cytokinin.  
The total cytokinin activity in extracts from leafy gall tissues was much  
greater than that in extracts from healthy stem tissues.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT plant growth regulators; Rhodococcus (bacteria); Nocardiaceae;  
Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental  
plants; Spermatophyta; Geraniaceae; Geriales; dicotyledons; angiosperms  
CT Cytokinins; diseases; RHODOCOCUS FASCIANS; GROWTH REGULATORS; plant  
diseases; ornamental plants; ornamental herbaceous plants; plant growth  
regulators  
ST **Corynebacterium fascians** IAA; endogenous

ORGN pelargonium

L1 ANSWER 92 OF 284 CABA COPYRIGHT 2001 CABI  
AN 75:66075 CABA  
DN 751324059  
TI Persistence of pea cotyledons induced by **Corynebacterium fascians**  
AU Oduro, K. A.; Munnecke, D. E.  
CS Univ. California, Riverside, USA.  
SO Phytopathology, (1975) Vol. 65, No. 10, pp. 1114-1116. 2 fig., 1 tab.  
ISSN: 0031-949X  
DT Journal  
LA English  
AB C. fascians caused fasciation in garden pea and a permanent retention of the morphological integrity of its cotyledons. Dry wt. of the cotyledons decreased to 14% of the original wt. 4 weeks after inoculation and planting. In contrast, cotyledons of noninoculated pea plants shrivelled in 2 weeks and decomposed shortly thereafter. Nutrients were utilized much more slowly in the diseased plants than in the control. The effects on the cotyledons may serve as a new bioassay for determining cytokinins, and a tool for studying infection by C. fascians.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT USA  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; North America; America  
CT PEAS; RHODOCOCUS FASCIANS; diseases; grain legumes; vegetables; vegetable legumes; plant pathogenic bacteria; plant pathology  
ST cotyldeons  
ORGN Leguminosae; bacteria

L1 ANSWER 93 OF 284 CABA COPYRIGHT 2001 CABI  
AN 75:65588 CABA  
DN 751320822  
TI Factors affecting epidemiology of bacterial fasciation of Chrysanthemum maximum  
AU Oduro, K. A.  
CS Univ. California, Riverside, USA.  
SO Phytopathology, (1975) Vol. 65, No. 6, pp. 719-721. 4 fig.  
ISSN: 0031-949X  
DT Journal  
LA English  
AB The severity of bacterial fasciation of C. maximum caused by **Corynebacterium fascians** appeared to increase with the length of time plants are diseased, and with the removal of apical buds. Garden pea seedlings responded rapidly to inoculation in glasshouse tests. Since root pieces of C. maximum used for propagation were the main sources of inoculum in the field, the use of clean planting material for control is emphasized.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Compositae; Asterales; dicotyledons; angiosperms; Fabales; Leucanthemum  
CT RHODOCOCUS FASCIANS; epidemiology; diseases; PEAS; ornamental plants; ornamental herbaceous plants; plant pathogenic bacteria; vegetables; vegetable legumes; plant pathology  
ST Chrysanthemum maximum; maximum  
ORGN chrysanthemum; bacteria; Leguminosae; LEUCANTHEMUM MAXIMUM

L1 ANSWER 94 OF 284 CABA COPYRIGHT 2001 CABI

AN 75:63564 CABA  
DN 751318589  
TI Altered levels of indoleacetic acid and cytokinin in geranium stems infected with **Corynebacterium fascians**  
AU Balazs, E.; Sziraki, I.  
CS Res. Inst. Plant Prot., Budapest, Hungary.  
SO Acta Phytopathologica Academiae Scientiarum Hungaricae, (1974) Vol. 9, No. 3/4, pp. 387-292. 3 tab.  
DT Journal  
LA English  
AB Tumour tissues of leafy galls of Pelargonium zonale infected with C. fascians contain decreased amounts of IAA and show increased cytokinin activity compared with healthy stem tissues. Three active compounds, chromatographically similar to zeatin, zeatinriboside and N6( DELTA 2-isopentenyl)-adenine are present in both healthy and infected stems. Tumour tissues contain an additional cytokinin which is not present in traceable quantities in extracts from healthy stems. The total cytokinin activity in extracts from leafy gall tissues was much greater than that in extracts prepared from healthy stem tissues.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plant growth regulators; plants; Pelargonium Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta  
CT RHODOCOCCUS FASCIANS; cytokinins; ornamental plants; plant pathology  
ORGN Pelargonium zonale

L1 ANSWER 95 OF 284 CABA COPYRIGHT 2001 CABI  
AN 75:53432 CABA  
DN 740813837  
TI Chrysanthemum eelworm as a parasite of strawberry in southern Ukraine  
AU Lebedeva, M. E.; Metlitskii, O. Z.; Drozdovskii, E. M.  
CS Research Inst. for Horticulture of the non-Chernozem Zone, near Moscow, USSR.  
SO (1972) pp. 446-450.  
Publisher: "Kolos". Moscow  
Meeting Info.: Kul'tura zemlyaniki v SSSR. Doklady simpoziuma, (28 iyunya - 1 iyulya 1971).  
CY USSR  
DT Miscellaneous  
LA Russian  
AB Aphelenchoides ritzemabosi was present on strawberry plantations in southern Ukraine, USSR. The symptoms caused by this nematode together with **Corynebacterium fascians** on strawberry are described. Due to infection, average yield losses of the strawberry variety Korallovaya 100 were estimated as 53.4%. The variety Yasna seems to be somewhat less susceptible to A. ritzemabosi than Korallovaya 100 or Muto.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT USSR; USSR in Europe  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Nematoda; invertebrates; animals; Aphelenchoides; Aphelenchoididae; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants; Central Europe; Europe  
CT strawberries; LOSSES; incidence; resistance; RHODOCOCCUS FASCIANS; pathology; plant parasitic nematodes; plant nematology; nematology  
ST resistant varieties  
ORGN Aphelenchoides ritzemabosi; Fragaria

L1 ANSWER 96 OF 284 CABA COPYRIGHT 2001 CABI  
AN 75:13874 CABA  
DN 750330848

TI Crown gall and leafy gall  
CS UK, Ministry of Agriculture, Fisheries and Food; Agricultural Development and Advisory Service, Harpenden, UK.  
SO Advisory Leaflet, (1974) No. 253, pp. 5. 4 pl.  
DT Miscellaneous  
LA English  
AB Crown gall, caused by *Agrobacterium radiobacter* var. *tumefaciens*, may occur on the roots and stems of many woody or ornamental plants, including fruit trees (nurseries), soft fruit, marguerite daisies (*Chrysanthemum frutescens*) and Manetti rose rootstocks. The damage caused is described, and precautions against infection are outlined. Leafy gall, caused by *Corynebacterium fascians*, is characterized by the presence of a large number of short shoots. Many ornamental plants are liable to be infected, and especially chrysanthemums, dahlias and sweet peas. The importance of nursery hygiene is emphasized.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT UK  
BT plants; *Rhodococcus* (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; trees; woody plants; Spermatophyta; Compositae; Asterales; dicotyledons; angiosperms; Rosaceae; Rosales; *Lathyrus*; Leguminosae; Fabales; British Isles; Western Europe; Europe  
CT fruit crops; roses; diseases; ornamental plants; sweet peas; *RHODOCOCUS FASCIANS*; small fruits; fruit trees  
ST *Agrobacterium radiobacter* var. *tumefaciens*; *frutescens*  
ORGN *chrysanthemum*; *dahlia*; *Rosa*; *Lathyrus odoratus*

L1 ANSWER 97 OF 284 CABA COPYRIGHT 2001 CABI  
AN 75:12695 CABA  
DN 750328790  
TI How geranium cuttings free from bacterial disease are produced at the Societe Horticole de Philiomel  
Comment s'effectue la production des boutures de geranium, indemnes de bacterioses, a la Societe Horticole de Philiomel  
AU Angiboust, A.  
CS Philiomel Horticulture S.A., Salses, France.  
SO Pepinieristes Horticulteurs Maraichers, (1975) No. 154, pp. 51-58. 9 pl.  
DT Journal  
LA French  
AB A review and discussion of the methods used to produce cuttings of *Pelargonium zonale*, *P. peltatum* and *P. grandiflorum* free of *Agrobacterium tumefaciens*, *Corynebacterium fascians* and *Xanthomonas pelargonii*. The fluorescence test is used in the laboratory to detect bacterial infection. Mother-plants are regularly renewed and screened, and to avoid the contamination of cuttings all implements, materials and workers' protective clothing are regularly disinfected.  
CC FF160 Plant Propagation; HH000 Pathogen, Pest and Parasite Management (General)  
GT France  
BT *Rhodococcus* (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Geraniaceae; Gerinales; dicotyledons; angiosperms; *Agrobacterium*; Rhizobiaceae; Gracilicutes; Western Europe; Europe; Mediterranean Countries  
CT diseases; *RHODOCOCUS FASCIANS*; cuttings; disease control; ornamental plants; ornamental herbaceous plants  
ST *Xanthomonas pelargonii*  
ORGN *pelargonium*; *Agrobacterium tumefaciens*

L1 ANSWER 98 OF 284 CABA COPYRIGHT 2001 CABI  
AN 74:51677 CABA

DN 731306517  
TI Production of D-alanine by **Corynebacterium fascians**  
AU Yamada, S.; Maeshima, H.; Wada, M.; Chibata, I.  
CS Tanabe Seiyaku Co., Osaka, Japan.  
SO Applied Microbiology, (1973) Vol. 25, No. 4, pp. 636-640. 1 graph, 7 tab.  
DT Journal  
LA English  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes  
CT RHODOCOCCUS FASCIANS; physiology; plant pathogenic bacteria; plant  
pathology  
ORGN bacteria

L1 ANSWER 99 OF 284 CABA COPYRIGHT 2001 CABI  
AN 74:48623 CABA  
DN 740810749  
TI Methods of detecting *Aphelenchoides fragariae*-**Corynebacterium fascians** infection in strawberry fields  
AU Matveeva, M. A.; Yakubovich, T. N.  
SO Materialy Nauchnykh Issledovanii Chlenov Vsesoyuznogo Obshchestva Gel'mintologov, 1970-1971, (1972) No. 24, pp. 103-109.  
DT Journal  
LA Russian  
AB Ways of assessing the effect of *Aphelenchoides fragariae*/  
**Corynebacterium fascians** infection on strawberries  
growing in the Moscow region (USSR) were studied. The parent plant plus  
its peripheral offshoots were considered as a single entity, the age of  
which was taken as the average of that of all its members. A bed was  
divided into rectangular units (30 X 50 cm). Any unit containing one or  
more diseased plants was classified as diseased. The crop yield from  
diseased units was 28.6 to 38.0% lower than from healthy ones. Graphical  
analysis showed the incidence of infection amongst plants established for  
3 to 4 years to be three to seven times higher than for those established  
for shorter periods. To determine the numbers of foci of infection, one  
diseased unit amongst healthy ones in a row or a group of adjacent  
diseased units were classified as foci. Amongst plants established for 5  
to 6 years there were more than twice as many foci as amongst those  
established for 2 to 3 years.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT USSR  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; Nematoda; invertebrates; animals; *Aphelenchoides*;  
*Aphelenchoididae*; Rosaceae; Rosales; dicotyledons; angiosperms;  
Spermatophyta; plants  
CT RHODOCOCCUS FASCIANS; strawberries; pathogenicity; interactions; plant  
parasitic nematodes; plant nematology; nematology  
ORGN *Aphelenchoides fragariae*; *Fragaria*

L1 ANSWER 100 OF 284 CABA COPYRIGHT 2001 CABI  
AN 74:8064 CABA  
DN 730312892  
TI The importance of bacterial injury in chrysanthemum growing  
Importance des degats d'origine bacterienne dans les cultures de  
chrysanthemes  
AU Lemattre, M.  
CS Centre National de la Recherche Agronomique, Versailles, France.  
SO Journee d'Etude sur le Chrysantheme, Paris, 1971, pp. 61-74. 14 pl. 7 ref.  
DT Miscellaneous  
LA French

AB Short descriptions of symptoms induced by *Pseudomonas cichorii*,  
*Agrobacterium tumefaciens*, ***Corynebacterium fascians***  
and *Erwinia chrysanthemi*, together with indexing procedures and control  
measures.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT France  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; plants; ornamental plants; Spermatophyta;  
*Pseudomonas*; *Pseudomonadaceae*; Gracilicutes; *Agrobacterium*; Rhizobiaceae;  
*Erwinia*; Enterobacteriaceae; Western Europe; Europe; Mediterranean  
Countries  
CT RHODOCOCCUS FASCIANS; ornamental plants; ornamental herbaceous plants  
ST chrysanthemum diseases  
ORGN *Pseudomonas cichorii*; *Agrobacterium tumefaciens*; *Erwinia chrysanthemi*

L1 ANSWER 101 OF 284 CABA COPYRIGHT 2001 CABI  
AN 74:6923 CABA  
DN 730311117  
TI Infectious wilt of strawberry  
AU Kulikova, M. T.  
CS Kazakhskii Sel'skokhozyaistvennyi Institut, Kazakh SSR.  
SO Zashchita Rastenii, (1973) No. 6, pp. 40.  
DT Journal  
LA Russian  
AB In the Alma-Ata region a wilt which caused leaf deformation, stem and  
petiole thickening and premature development of axillary buds was  
attributed not to ***Corynebacterium fascians***, but to  
*Fusarium oxysporum* and *Verticillium dahliae*.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT USSR  
BT *Fusarium*; Deuteromycotina; Eumycota; fungi; *Verticillium*  
CT symptoms; small fruits; fruit crops  
ST strawberry diseases  
ORGN *Fusarium oxysporum*; *Verticillium dahliae*

L1 ANSWER 102 OF 284 CABA COPYRIGHT 2001 CABI  
AN 73:89388 CABA  
DN 731608504  
TI In vitro culture as a technique for approaching some problems posed by  
plant breeding  
Les cultures in vitro en tant que technique pour l'approche de problemes  
poses par l'amelioration des plantes  
AU Nozeran, R.; Bancilhon, L.  
CS Laboratoire de Morphologie vegetale experimentale, associe au CNRS,  
Universite Paris-Sud, France.  
SO Annales de l'Amelioration des Plantes, (1972) Vol. 22, No. 2, pp. 167-185.  
108 ref.  
DT Journal  
LA French  
SL English  
AB The in vitro culture of cells and tissues is considered of great use as a  
method for vegetative propagation, production of mutants, variants and  
haploids, investigation of host-parasite relations and propagation of  
virus-free plants. Numerous examples cited throughout the review emphasize  
the practical importance of such methods for plant improvement. Examples  
include the propagation of *Vitis* and *Citrus* by stem cuttings; culture of  
embryos from dormant seeds of *Panicum maximum*; interspecific hybrids of  
*Linum* and intergeneric hybrids of the Solanaceae; production of branch  
mutants in coffee; culture of anthers for haploidy in *Nicotiana*, *Oryza* and  
*Brassica*; and investigation of *Pisum sativum* infected with

***Corynebacterium fascians*.**

CC FF020 Plant Breeding and Genetics  
GT France  
BT Western Europe; Europe; Mediterranean Countries  
CT tissue culture; anther culture; vegetative propagation; haploidy; cereals  
  
L1 ANSWER 103 OF 284 CABA COPYRIGHT 2001 CABI  
AN 73:69060 CABA  
DN 721300460  
TI Concerning the presence of the cytokinin, N6-( DELTA 2-isopentenyl) adenine, in cultures of ***Corynebacterium fascians***  
AU Rathbone, M. P.; Hall, R. H.  
CS McMaster Univ., Hamilton, Ont., Canada.  
SO *Planta*, (1972) Vol. 108, No. 2, pp. 93-102. 2 graphs.  
ISSN: 0032-0935  
DT Journal  
LA English  
AB This compound is a potent cytokinin present in cultures of *C. fascians* although it represents only a small part of the total cytokinin activity.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes  
CT RHODOCOCUS FASCIANS; plant pathogenic bacteria; plant pathology  
ST cytokinin activity  
ORGN bacteria

L1 ANSWER 104 OF 284 CABA COPYRIGHT 2001 CABI  
AN 73:27318 CABA  
DN 720304918  
TI Breeding, variety studies and cultural practices in top and small fruit crops. Vol. V  
Selektsiya, sortoizuchenie, agrotekhnika plodovykh i yagodnykh kul'tur, Tom V  
AU Semakin, V. P.; Sedov, E. N. : Mikheeva, M. V.; Zhdanov, V. N.; Sedova, Z. A.; Maksimova, T. N.; Maslov, S. P.; Shorokhov, S. S.; Rudenko, K. N.; Kolesnikova, A. F.; Kolesnikov, A. I.; Grevtseva, E. I.; Blinov, V. A.; Blinova, E. E.  
CS USSR, Orlovskaya Plodovo-Yagodnaya Opytnaya Stantsiya  
SO Selektsiya, sortoizuchenie, agrotekhnika plodovykh i yagodnykh kul'tur, Tom V, (1971) pp. 262. pl. many ref.  
Orel, Priokskoe Knizhnoe Izdatel'stvo  
Price: 1.41 r.  
DT Miscellaneous  
LA Russian  
AB This 5th volume of collected papers [for earlier vols see HcA 41, 5485 and 42, 193] from the Orel Fruit Experiment Station includes: On the possibilities of increasing the output of induced gamma-mutation apple tree varieties (pp. 3-17, 13 ref.), by V.P. Semakin; Breeding apples for winter hardiness (pp. 34-60, 73 ref.), by E.N. Sedov; Breeding apples for restrained tree growth in height (pp. 61-76, 15 ref.), by E.N. Sedov and M.V. Mikheeva; The effect of gibberellin on berry set in black currants (pp. 122-127, 5 ref.), by V.N. Zhdanov; Weight losses in apples in relation to variety and storage conditions (pp. 134-141, 15 ref.), by Z.A. Sedova and T.N. Maksimova; The effect of the depth of pre-planting ploughing on the growth and productivity of apples (pp. 160-162, 6 ref.), by S.P. Maslov, S.S. Shorokhov and K.N. Rudenko; The growth and productivity of apples with grassing down (pp. 163-174, 19 ref.), by S.P. Maslov and S.S. Shorokhov; Frost damage to the root system and tree recovery of sour cherries (pp. 204-221, 40 ref.), by A.F. Kolesnikova and A.I. Kolesnikov; Biological characteristics of the causal agent of shot

hole [Clasterosporium carpophilum] in stone fruits and conditions for disease development (pp. 222-231, 22 ref.), by E.I. Grevtseva; A disease of strawberries caused by Aphelenchoides fragariae and **Corynebacterium fascians** (pp. 232-239, 10 ref.), by V.A. Blinov; and Correction of apple yield data by mathematical methods (pp. 240-252, 10 ref.), by E.E. Blinova.  
 CC FF100 Plant Production; FF600 Pests, Pathogens and Biogenic Diseases of Plants  
 GT USSR  
 BT gibberellins; plant growth regulators; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; arthropods; invertebrates; animals; pests; Aphelenchoides; Aphelenchoididae; Nematoda; Rosaceae; Rosales; dicotyledons; angiosperms; Spermatophyta; plants; Ribes; Grossulariaceae; Stigmata; Deuteromycotina; Eumycota; fungi  
 CT gibberellin acid; apples; irradiation; gamma radiation; breeding; cold resistance; set; GROWTH REGULATORS; fruit; black currants; storage; cultivation; depth; cover crops; grass sward; cherries; frost; injuries; roots; recovery; stone fruits; diseases; RHODOCOCUS FASCIANS; yields; STATISTICAL ANALYSIS; arthropod pests; small fruits; fruit crops; plant growth regulators; selection; strawberries  
 ST mutation induction; dwarf forms; black currant fruit; blackcurrant growth substances; weight loss; varietal behaviour; apple varieties; storage behaviour; apple soil; Clasterosporium carpophilum; strawberry diseases; nematode complex; correlations; bacteria complex  
 RN 77-06-5  
 ORGN Aphelenchoides fragariae; Malus; Ribes nigrum; Prunus; Fragaria; STIGMINA CARPOPHILA

L1 ANSWER 105 OF 284 CAPLUS COPYRIGHT 2001 ACS  
 AN 1997:172451 CAPLUS  
 DN 126:185884  
 TI Preparation of 1-benzyloxy-3-chloro-2-propanol  
 IN Yanase, Eiji; Iwasaki, Fumiaki  
 PA Tokuyama Corp, Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C07C069-96  
 ICS C12P007-22; C12R001-365; C12R001-01; C12R001-05; C12R001-025; C12R001-07; C12R001-125; C12R001-09; C12R001-13; C12R001-15; C12R001-20; C12R001-265; C12R001-37; C12R001-39; C12R001-38; C12R001-425; C12R001-64; C12R001-73; C12R001-72  
 CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
 Section cross-reference(s): 16  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09020726	A2	19970121	JP 1995-167649	19950703
OS	MARPAT 126:185884				
AB	1-Benzylxy-3-chloro-2-propanol (I) was prep'd. by hydrolysis of PhCH <sub>2</sub> OCH <sub>2</sub> CH(OCO <sub>2</sub> R)CH <sub>2</sub> Cl (II) [R = alkyl]. Thus, addn. of II [R = methyl] to Nocardiа erythropolis IAM 1494 in a phosphate buffer soln. gave racemic I in 92.2% yield. In other examples, optically active I was obtained.				
ST	benzyloxychloropropanol prep'n; microbial hydrolysis benzyloxychloroalkoxycarbonyloxypropane				
IT	Achromobacter polymorph Acinetobacter calcoaceticus Aureobacterium esteraromaticum				

Bacillus sphaericus  
Bacillus subtilis  
Bacillus subtilis natto  
Candida kefyr  
Candida maltosa  
Candida solani  
Chromobacterium iodinum  
Corynebacterium ammoniagenes  
Corynebacterium equi  
**Corynebacterium fascians**  
Corynebacterium glutamicum  
Gordona rubropertinctus  
Micrococcus rubens  
Nocardia erythropolis  
Pseudomonas fluorescens  
Pseudomonas stutzeri  
Rhodococcus equi  
Rhodococcus erythropolis  
Rhodococcus terrae  
Sporidiobolus johnsonii  
Trichosporon cutaneum  
Williopsis californica  
Yarrowia lipolytica  
(prepn. of benzyloxychloropropanol by microbial hydrolysis of  
benzyloxychloroalkoxycarbonyloxypropane)

IT 126575-79-9P 128572-86-1P  
RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); BIOL  
(Biological study); PREP (Preparation)  
(prepn. of benzyloxychloropropanol)  
IT 187105-48-2P 187105-49-3P 187105-50-6P  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic  
preparation); PREP (Preparation)  
(prepn. of benzyloxychloropropanol)  
IT 79-22-1, Methyl chlorocarbonate 108-23-6, Isopropyl chlorocarbonate  
541-41-3, Ethyl chlorocarbonate  
RL: RCT (Reactant)  
(prepn. of benzyloxychloropropanol)

L1 ANSWER 106 OF 284 CAPLUS COPYRIGHT 2001 ACS  
AN 1997:66886 CAPLUS  
DN 126:221177  
TI Characteristics of a PCR-based assay for in planta detection of  
Xanthomonas campestris pv. pelargonii  
AU Sulzinski, M. A.; Moorman, G. W.; Schlaginhauf, B.; Romaine, C. P.  
CS Department Biology, University Scranton, Scranton, PA, 18510, USA  
SO J. Phytopathol. (1996), 144(7-8), 393-398  
CODEN: JPHYEB; ISSN: 0931-1785  
PB Blackwell  
DT Journal  
LA English  
CC 3-1 (Biochemical Genetics)  
Section cross-reference(s): 10, 11  
AB Polymerase chain reaction (PCR) amplification was carried out with a  
primer pair targeting a sequence in the genome of *X. campestris* pv.  
pelargonii. PCR amplification with the primer pair XcpM1/XcpM2 using  
total nucleic acid preps. from 22 geog.-diverse isolates of *X. campestris*  
pv. pelargonii generated a major 197 bp DNA product. In contrast, no  
major amplification products were consistently generated from 12 other  
pathovars of *X. campestris* or from 19 isolates representing 10 different  
pathogens of geraniums, **Corynebacterium fascians** and

*Pseudomonas cichorii*. After PCR using this primer pair, between 1,380 and 13,800 copies of the *X. campestris* pv. *pelargonii* bacterial DNA target as template were detected by ethidium bromide staining of agarose gels and between 13.8 and 138 copies by blot hybridization to a pathovar-specific biotinylated probe. Between 630 and 6,300 colony-forming units (CFU) of *X. campestris* pv. *pelargonii* were detected after ethidium bromide staining of agarose gels and between 63 and 630 CFU after blot hybridization. The PCR-based assay was used to identify *X. campestris* pv. *pelargonii* in diseased geraniums, whereas discrete amplification products were not obtained with healthy plants.

ST PCR DNA *Xanthomonas geranium*  
IT PCR (polymerase chain reaction)  
Xanthomonas campestris *pelargonii*  
(PCR-based assay for in planta detection of *Xanthomonas campestris* pv.  
*pelargonii*)  
IT *Pelargonium hortorum*  
(disease, blight; of *XcpM1/XcpM2* amplicon in a PCR-based assay for in  
planta detection of *Xanthomonas campestris* pv. *pelargonii*)  
IT DNA sequences  
(of *XcpM1/XcpM2* amplicon in PCR-based assay for in planta detection of  
*Xanthomonas campestris* pv. *pelargonii*)  
IT 188204-33-3  
RL: ANT (Analyte); ANST (Analytical study)  
(nucleotide sequence; DNA sequence of *XcpM1/XcpM2* amplicon in a  
PCR-based assay for in planta detection of *Xanthomonas campestris* pv.  
*pelargonii*)  
IT 188205-67-6  
RL: AGR (Agricultural use); ARG (Analytical reagent use); ANST (Analytical  
study); BIOL (Biological study); USES (Uses)  
(primer *XcpM1*; PCR-based assay for in planta detection of *Xanthomonas*  
*campestris* pv. *pelargonii*)  
IT 188205-68-7  
RL: AGR (Agricultural use); ARG (Analytical reagent use); ANST (Analytical  
study); BIOL (Biological study); USES (Uses)  
(primer *XcpM2*; PCR-based assay for in planta detection of *Xanthomonas*  
*campestris* pv. *pelargonii*)

L1 ANSWER 107 OF 284 CAPLUS COPYRIGHT 2001 ACS  
AN 1994:428173 CAPLUS  
DN 121:28173  
TI Cloning and sequence determination of the gene coding for the elongation  
factor Tu of *Mycobacterium leprae*  
AU Dhandayuthapani, Subramanian; Banu, Mohammed Jameela; Kashiwabara, Yoshiko  
CS Natl. Inst. Leprosy Res., Higashimurayama, 189, Japan  
SO J. Biochem. (Tokyo) (1994), 115(4), 664-9  
CODEN: JOBIAO; ISSN: 0021-924X  
DT Journal  
LA English  
CC 3-3 (Biochemical Genetics)  
AB Section cross-reference(s): 6, 10  
Elongation factor Tu (EF-Tu) plays an important role in protein  
biosynthesis and is susceptible to antibiotics in prokaryotes like  
*Escherichia coli*. In order to understand the primary structure of EF-Tu  
in the intracellular pathogenic bacterium *M. leprae*, the gene (tuf gene)  
coding for this protein was cloned and sequenced. The gene contains a  
coding region of 1,188 bp with GUG as start codon. The deduced amino acid  
sequence has 396 amino acids with a mol. wt. of 43.6 kDa. Putative  
GRP-binding sites are located at amino acid positions 19-24, 83-87, and  
138-141. Comparison of *M. leprae* EF-Tu amino acid sequence with those of  
*M. tuberculosis*, *Micrococcus luteus*, *E. coli*, and *Salmonella typhimurium*

reveals 74-95% homol. Mitochondrial EF-Tu of *Saccharomyces cerevisiae* (62%) and chloroplast EF-Tu of *Arabidopsis thaliana* (65.6%) also show strong homol. with that of *M. eprae*. In contrast, the EF-Tu of the archaeabacterium *Halobacterium marismortui* exhibits relatively less homol. (36.7%). Southern hybridization of *M. leprae* tuf gene with genomic DNA of slow growing and fast growing mycobacteria and related species like *Corynebacterium fascians* and *Nocardia asteroides* suggests that the gene is highly conserved in these organisms.

ST Mycobacterium elongation factor tuf gene sequence; Tu elongation factor tuf gene Mycobacterium; conservation Tu elongation factor gene Mycobacterium

IT Mycobacterium leprae  
(Tu elongation factor tuf gene of, sequence of)

IT Deoxyribonucleic acid sequences  
(of Tu elongation factor tuf gene, of Mycobacterium leprae)

IT Protein sequences  
(of tuf gene Tu elongation factor, of Mycobacterium leprae)

IT Gene, microbial  
RL: PROC (Process)  
(tuf, for Tu elongation factor, of Mycobacterium leprae, sequence and high conservation of)

IT 155980-64-6, Tu elongation factor (Mycobacterium leprae strain Hawaiiin clone pEFT gene tuf)  
RL: PRP (Properties)  
(amino acid sequence and guanine binding sites of)

IT 152283-63-1  
RL: PROC (Process)  
(nucleotide sequence and high conservation of)

L1 ANSWER 108 OF 284 CAPLUS COPYRIGHT 2001 ACS  
AN 1994:47397 CAPLUS  
DN 120:47397  
TI Detection of insertion elements and transposons in Coryneform bacteria  
IN Schaefer, Andreas; Seep-Feldhaus, Anna Hildegard; Jaeger, Wolfgang;  
Kalinowski, Joern; Wohlleben, Wolfgang; Puehler, Alfred  
PA Degussa AG, Germany  
SO Ger. Offen., 15 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM C12N015-77  
ICS C12Q001-68; C12N015-11; C12N001-21; G01N033-68  
ICI C12Q001-68, C12R001-15, C12R001-13; C12N015-11, C12R001-15, C12R001-13;  
C12N001-21, C12R001-15, C12R001-19  
CC 3-5 (Biochemical Genetics)

FAN.CNT 1		KIND	DATE	APPLICATION NO.	DATE
PATENT NO.				-----	-----
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PI	DE 4208785	A1	19930923	DE 1992-4208785	19920319
	EP 563527	A1	19931006	EP 1993-101279	19930128
	EP 563527	B1	19960313		
	R: BE, DE, FR, GB, IT				
	JP 06046867	A2	19940222	JP 1993-58443	19930318
	JP 2944841	B2	19990906		
	US 5380657	A	19950110	US 1993-33320	19930318
	US 5633154	A	19970527	US 1994-336069	19941104

PRAI DE 1992-4208785 19920319  
US 1993-33320 19930318

AB A method of detecting and trapping mobile genetic elements endogenous in *Corynebacteria* is described. The method is useful in the development of

Corynebacterium expression hosts (no data). The method uses a mobilisable plasmid carrying the *Bacillus subtilis* *sacB* gene. High-level expression of the gene in Gram-neg. bacteria is lethal, so inactive mutants can be selected for by their growth in a medium contg. >5% sucrose.

ST transposon insertion element *Corynebacterium* detection

IT Microbial conjugation  
(between *Escherichia coli* and *Corynebacterium*, with mobilisable plasmid, in detection of mobile genetic elements in *Corynebacterium*)

IT Gene, microbial  
RL: BIOL (Biological study)  
(*lysI*, spontaneous mutant of, in *Corynebacterium glutamicum*, due to insertion sequence)

IT *Brevibacterium flavum*  
*Brevibacterium lactofermentum*  
*Corynebacterium*  
***Corynebacterium fascians***  
*Corynebacterium glutamicum*  
*Corynebacterium herculis*  
(mobile genetic elements in, detection of, plasmid for)

IT Plasmid and Episome  
(mobilisable, for identification of mobile genetic elements in *Corynebacterium*)

IT Genetic element  
RL: BIOL (Biological study)  
(mobilisation site, in mobilisable plasmid for identification of mobile genetic elements in *Corynebacterium*)

IT Deoxyribonucleic acid sequences  
(of insertion sequence of ISCg1 of *Corynebacterium glutamicum*)

IT Protein sequences  
(of open reading frame-derived proteins of insertion sequence ISCg1 of *Corynebacterium glutamicum*)

IT Plasmid and Episome  
(pWJ5, *sacB* gene of *Bacillus subtilis* on, for detection of mobile genetic elements in *Corynebacter*)

IT Mutation  
(insertion, in *Corynebacterium*, mobile genetic elements for, cloning of)

IT Genetic element  
RL: BIOL (Biological study)  
(insertion sequence, ISCg1, of *Corynebacterium*, detection of, plasmid for)

IT Genetic element  
RL: BIOL (Biological study)  
(insertion sequence, ISRF1, of ***Corynebacterium fascians***, detection of, plasmid for)

IT Genetic element  
RL: PROC (Process)  
(insertion sequence, in *Corynebacterium*, detection of, plasmid for)

IT Mutation  
(insertion, spontaneous, in *Corynebacterium*, mobile genetic elements in)

IT Genetic element  
RL: BIOL (Biological study)  
(*ori*, in mobilisable plasmid for identification of mobile genetic elements in *Corynebacterium*)

IT Genetic element  
RL: BIOL (Biological study)  
(*oriT*, in mobilisable plasmid for identification of mobile genetic elements in *Corynebacterium*)

IT Gene, microbial

AU Eason, Jocelyn R.; Jameson, Paula E.  
CS Bot. Dep., Univ. Otago, Dunedin, N. Z.  
SO Curr. Plant Sci. Biotechnol. Agric. (1992), 13(Prog. Plant Growth Regul.),  
511-16  
CODEN: CPBAE2; ISSN: 0924-1949

DT Journal

LA English

CC 10-6 (Microbial, Algal, and Fungal Biochemistry)

AB The relationship between cytokinin prodn. and virulence was reinvestigated using immunoaffinity purifn., HPLC sepn., and quantitation by RIA of cytokinins.

ST *Corynebacterium* cytokinin formation virulence

IT ***Corynebacterium fascians***

(cytokinin formation by, virulence correlation with)

IT Microbial virulence

(of ***Corynebacterium fascians***, cytokinin formation correlation with)

IT Plant hormones and regulators

RL: FORM (Formation, nonpreparative)

(cytokinins, formation of, by ***Corynebacterium fascians***, virulence relation with)

L1 ANSWER 111 OF 284 CAPLUS COPYRIGHT 2001 ACS

AN 1991:628075 CAPLUS

DN 115:228075

TI Neither indoleacetic acid nor bacteriocin is apparently involved in the in vitro antagonism between the virulent and the avirulent strains of *Pseudomonas solanacearum*

AU Wagih, Elsayed E.

CS Coll. Agric., Univ. Alexandria, Alexandria, Egypt

SO J. Phytopathol. (1991), 132(2), 153-60

CODEN: JPHYEB; ISSN: 0931-1785

DT Journal

LA English

CC 10-3 (Microbial Biochemistry)

AB An avirulent strain of *P. solanacearum* could inhibit the growth of its virulent parent on L-tryptophan-contg. glycerol nutrient agar (TGNA) medium. It was, also, capable of inhibiting, though to a less degree, ***Corynebacterium fascians*** and *Pseudomonas marginata*, out of five other bacterial species tested. While *P. marginata* was partially inhibited by the avirulent strain it was totally insensitive to indole-3-acetic acid (IAA) up to a concn. of 300 .mu.g/mL. Addnl., *Erwinia carotovora* var *atroseptica*, which was totally unaffected by the avirulent strain, showed a spectrum of sensitivity to IAA concns. close to that of the virulent strain. No DNA, RNA, or IAA could be detected in the inhibition area and, thus, it is almost certain that the inhibiting agent produced by the avirulent strain is not IAA as was previously speculated. This inhibiting agent was insensitive to autoclaving and to the enzymes, pronase, trypsin, DNAse, and RNAse. *P. solanacearum* bacteriocin was detected by PAGE in the medium near the avirulent growth line but not throughout the inhibition area. This supports the conclusion that bacteriocin alone cannot be held responsible for the inhibition phenomenon obstd. and the nature of this inhibiting agent remains unknown.

ST *Pseudomonas* virulent avirulent antagonism indoleacetate; bacteriocin  
Pseudomonas growth inhibition

IT *Pseudomonas solanacearum*

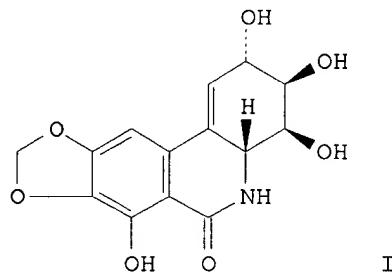
(growth antagonism of avirulent and virulent strains of, bacteriocin and indoleacetate in relation to)

IT ***Corynebacterium fascians***

*Pseudomonas marginata*

(growth antagonism of, by avirulent *Pseudomonas solanacearum* strain,  
 bacteriocin and indoleacetate in relation to)  
 IT Bacteriocins  
 RL: BIOL (Biological study)  
 (of *Pseudomonas solanacearum* avirulent strain, growth inhibition of  
 virulent strain in relation to)  
 IT 87-51-4, Indole acetic acid, biological studies  
 RL: BIOL (Biological study)  
 (growth antagonism of *Pseudomonas solanacearum* avirulent and virulent  
 strains in relation to)

L1 ANSWER 112 OF 284 CAPLUS COPYRIGHT 2001 ACS  
 AN 1991:589549 CAPLUS  
 DN 115:189549  
 TI Narciclasine: proton and carbon-13 NMR data and a new improved method of  
 preparation  
 AU Evidente, A.  
 CS Dip. Sci. Chim.-Agrar., Univ. Napoli "Federico II", Portici, I-80055,  
 Italy  
 SO Planta Med. (1991), 57(3), 293-5  
 CODEN: PLMEAA; ISSN: 0032-0943  
 DT Journal  
 LA English  
 CC 63-4 (Pharmaceuticals)  
 Section cross-reference(s): 1, 11, 31  
 GI



AB Narciclasine (I), a well known, nonbasic metabolite occurring in some  
 Amaryllidaceae species, possesses an interesting antimitotic activity. It  
 is structurally related to lycorine, the main amaryllidaceae alkaloid, and  
 it exhibits a surprisingly higher activity than lycorine and several of  
 its synthetic and natural analogs in the inhibition of ascorbic acid  
 biosynthesis in potato tuber slices. A previous study on lycorine  
 structure-activity relationships showed that narciclasine had a very  
 strong antibiotic activity when assayed on *Corynebacterium  
 fascians*.  
 ST narciclasine Sternbergia extrn NMR  
 IT Sternbergia lutea  
 (narciclasine of, proton and carbon-13-NMR spectra of)  
 IT Nuclear magnetic resonance  
 (of narciclasine, of Sternbergia lutea, proton and carbon-13)  
 IT 1333-74-0 14762-74-4  
 RL: BIOL (Biological study)  
 (nuclear magnetic resonance, of narciclasine, of Sternbergia lutea,

TI No transfer of leafy gall disease in lilies propagated by tissue culture  
Geen overdracht van woekerziekte in lelies door vermeerdering via  
weefselkweekmethode

AU Aartrijk, J. van; Blom-Barnhoorn, G. J.

CS Laboratorium voor Bloembollenonderzoek, Lisse, Netherlands.

SO Bloembollencultuur, (1982) Vol. 92, No. 38, pp. 1012. 1 pl.

ISSN: 0165-6406

DT Journal

LA Dutch

AB In trials with cv. Enchantment, there was no carry-over of  
**Corynebacterium fascians**.

CC FF170 in vitro Culture of Plant Material; ZZ900 Techniques and Methodology

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; plants; ornamental plants; Spermatophyta;  
Liliaceae; Liliales; monocotyledons; angiosperms

CT tissue culture; propagation; techniques; diseases; RHODOCOCCUS FASCIANS;  
ornamental plants; ornamental bulbs

ORGN Lilium

L1 ANSWER 61 OF 284 CABA COPYRIGHT 2001 CABI  
AN 82:72968 CABA  
DN 821385873

TI Seed borne bacterial tumors in tobacco

AU Misra, A.; Jha, V.; Jha, S.; Sharma, B. P.; Lozano, J. C. [EDITOR]

CS L.N. Mithila Univ., Darbhanga, India.

SO (1982) pp. 210-212. 1 fig., 1 tab. 5 ref.  
Publisher: Centro Internacional de Agricultura Tropical. Cali  
Meeting Info.: Proceedings of the Fifth International Conference on Plant  
Pathogenic Bacteria.

CY Colombia

DT Miscellaneous

LA English

AB Thick green stem tumours were caused by **Corynebacterium**  
**fascians**. Seed transmission was confirmed and bacterial colonies  
were seen on the seed surface.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
bacteria; prokaryotes; Spermatophyta; plants; Solanaceae; Solanales;  
dicotyledons; angiosperms

CT seedborne organisms; RHODOCOCCUS FASCIANS; tobacco; plant pathogenic  
bacteria; stimulant plants; plant pathology

ST seed-borne; stem tumours

ORGN bacteria; Nicotiana

L1 ANSWER 62 OF 284 CABA COPYRIGHT 2001 CABI  
AN 82:71309 CABA  
DN 821383758

TI Relationships between growth and pathogenicity of **Corynebacterium**  
**fascians** (Tilford) Dowson  
Relations entre la croissance et le pouvoir pathogene chez  
**Corynebacterium fascians** (Tilford) Dowson

AU Rivain, J.-G.; Roussaux, J.

CS Lab. Pl. Biol., Univ. Pierre et Marie Curie, Paris, France.

SO Agronomie, (1982) Vol. 2, No. 5, pp. 479-485. 8 fig., 4 tab. 20 ref.

ISSN: 0249-5627

DT Journal

LA French

SL English

AB All stra. studied had simple and identical nutritional requirements in  
vitro but some differences between those pathogenic and non-pathogenic to

par  
comme

L1 ANSWER 33 OF 284 AGRICOLA  
AN 75:75833 AGRICOLA  
DN 75-9076868  
TI Factors affecting epidemiology of bacterial [**Corynebacterium fascians**] fasciation of Chrysanthemum maximum  
AU Oduro, K A  
AV DNAL (464.8 P56)  
SO Phytopathology, June 1975 Vol. 65, No. 6, pp. 719-721.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 34 OF 284 AGRICOLA  
AN 75:61641 AGRICOLA  
DN 75-9062611  
TI Crown gall [Agrobacterium radiobacter tumefaciens] and leafy gall [**Corynebacterium fascians**]  
AV DNAL (10 G79LA)  
SO Advis Leafl Minist Agric Fish Food (Edinb), 1974 Vol. 253, Rev., 5 p.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 35 OF 284 AGRICOLA  
AN 75:44109 AGRICOLA  
DN 75-9044913  
TI Altered levels of indoleacetic acid and cytokinin in geranium stems infected with **Corynebacterium fascians**  
AU Balazs, E; Sziraki, I  
AV DNAL (SB731.A3)  
SO Acta Phytopathol, 1974 Vol. 9, No. 3/4, pp. 287-292. Ref.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)  
RN 87-51-4Q, 32536-43-9Q (INDOLEACETIC ACID)

L1 ANSWER 36 OF 284 AGRICOLA  
AN 72:109981 AGRICOLA  
DN 72-9110413  
TI Concerning the presence of the cytokinin. N6-(Delta2-isopentenyl) adenine, in cultures of **Corynebacterium fascians**, [fasciation disease, plants]  
AU Rathbone, M P; Hall, R H  
AV DNAL (450 P693)  
SO Planta, 1972 Vol. 108, No. 2, pp. 95-102.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 37 OF 284 AGRICOLA  
AN 72:107710 AGRICOLA  
DN 72-9108138  
TI Bacterial diseases of pelargoniums in our gardens. [Xanthomonas pelargonii, **Corynebacterium fascians**]  
La bacteriose chez les pelargoniums de nos jardins  
AU Metron, R  
AV DNAL (QH3.S37)  
SO Sci Nat, July/Aug 1972 No. 112, pp. 33-36.  
DT Journal; Article  
LA French

CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 38 OF 284 AGRICOLA  
AN 70:9885 AGRICOLA  
DN 70-9009970  
TI Pathogenic activity of various strains of **Corynebacterium fascians** (Tilf.) Dow  
AU Chekunova, L N  
AV DNAL (442.9 M854)  
SO Moscow Univ Vestnik Ser 6 Biol Pochvoved, 1969 No. 1, pp. 117-119.  
DT Journal; Article  
LA Russian  
CC 70 Plant Science (1970-71)

L1 ANSWER 39 OF 284 CABA COPYRIGHT 2001 CABI  
AN 1998:81107 CABA  
DN 980607437  
TI Fasciation in Casuarina equisetifolia  
AU Prasad, N. S.; Rao, A. R.; Rao, G. M.  
CS Regional Forest Research Centre, Rajahmundry (Andhra Pradesh), India.  
SO Indian Forester, (1997) Vol. 123, No. 8, pp. 773-774. 1 ref.  
ISSN: 0019-4816  
DT Journal  
LA English  
AB Fasciation (a malformation resulting in an enlarged and flattened stem) was observed in several provenances of *C. equisetifolia* during trials in Andhra Pradesh in 1996. The stems which developed were short, thick and 20-25 cm tall. The fasciated growth was 10-15 cm long, not extending beyond 20 cm [height], and the stems had nodes, internodes and needles, and were of a normal green colour. The malformation has been shown to be caused by **Corynebacterium fascians** in several other (flower) species, but treatment with oxytetracycline in 1997 made no difference to the symptoms observed.

CC KK100 Forestry (General); KK600 Agroforestry; FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH400 Control by Chemicals and Drugs; FF020 Plant Breeding and Genetics

GT India; Andhra Pradesh

BT Casuarina; Casuarinaceae; Casuarinales; dicotyledons; angiosperms; Spermatophyta; plants; South Asia; Asia; Commonwealth of Nations; Developing Countries; India

CT fasciation; forest trees; multipurpose trees; stems; abnormal development; plant diseases; bacterial diseases; plant pathogenic bacteria; plant pathogens; plant disease control; antibiotics; chemical control; oxytetracycline; provenance trials

RN 79-57-2

ORGN Casuarina equisetifolia

L1 ANSWER 40 OF 284 CABA COPYRIGHT 2001 CABI  
AN 97:128885 CABA

DN 971006570

TI A simple DNA extraction method for PCR-based detection of *Xanthomonas campestris* pv. *pelargonii* in geraniums

AU Sulzinski, M. A.; Moorman, G. W.; Schlaginhaufen, B.; Romaine, C. P.  
CS Department of Biology, University of Scranton, Scranton, PA 18510, USA.

SO Journal of Phytopathology, (1997) Vol. 145, No. 5/6, pp. 213-215. 5 ref.  
ISSN: 0931-1785

DT Journal

LA English

SL German

AB A simple method for PCR-based plant clinical diagnosis of bacterial blight

of geraniums caused by *X. campestris* pv. *pelargonii* [*X. hortorum* pv. *pelargonii*] is described. The method entails maceration of infected tissues in water or 10 mM Tris-HCl, pH 8.0 buffer, followed by treatment of the macerate with a commercially-available extraction matrix (GeneReleaserTM) in which nucleic acid is released by brief microwave heating. Nucleic acid prepared in this manner served directly as template for PCR amplification with primers targeting a sequence in the genome of the bacterium. Using this protocol, it was possible to quickly identify *X. hortorum* pv. *pelargonii* in infected geraniums, whereas amplification products were not obtained with nucleic acid preparations from non-infected plants, or from plants infected with *Corynebacterium fascians* [Rhodococcus *fascians*] or *Pseudomonas cichorii*.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; WW000  
Biotechnology; ZZ900 Techniques and Methodology  
BT Geraniaceae; Geriales; dicotyledons; angiosperms; Spermatophyta; plants; prokaryotes  
CT plant diseases; plant pathogens; plant pathogenic bacteria; dna; extraction; detection; molecular genetics; polymerase chain reaction; ornamental plants; plant pathology  
ST *Xanthomonas hortorum* pv. *pelargonii*  
ORGN Pelargonium; bacteria

L1 ANSWER 41 OF 284 CABA COPYRIGHT 2001 CABI

AN 97:36540 CABA

DN 971001460

TI Characteristics of a PCR-based assay for in planta detection of *Xanthomonas campestris* pv. *pelargonii*

AU Sulzinski, M. A.; Moorman, G. W.; Schlaginhauf, B.; Romaine, C. P.

CS Department of Biology, University of Scranton, Scranton, PA 18510, USA.

SO Journal of Phytopathology, (1996) Vol. 144, No. 7/8, pp. 393-398. 9 ref.

ISSN: 0931-1785

DT Journal

LA English

SL German

AB A sequence in the geranium [Pelargonium] pathogen *X. c. pv. pelargonii* [*X. hortorum* pv. *pelargonii*] genome was targeted by PCR with a primer pair (XcpM1/XcpM2) using total nucleic acid preparations from 22 geographically-diverse isolates of *X. h. pv. pelargonii*. A major 197 bp DNA product was generated. No major amplification products were consistently generated from 12 other pathovars of *X. campestris* or from 19 isolates representing 10 different plant pathogenic bacteria, including 2 other bacterial geranium pathogens, *Corynebacterium fascians* [Rhodococcus *fascians*] and *Pseudomonas cichorii*. After PCR amplification 1380-13 800 copies of the *X. h. pv. pelargonii* bacterial DNA target as template were detected by ethidium bromide staining of agarose gels, and 13.8-138 copies were detected by blot hybridization to a pathovar-specific biotinylated probe. Between 630 and 6300 c.f.u. of *X. h. pv. pelargonii* were detected after ethidium bromide staining of agarose gels, and 63-630 c.f.u. were detected after blot hybridization. The PCR-based assay identified *X. h. pv. pelargonii* in diseased geraniums and discrete amplification products were not obtained with healthy plants.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; WW000

Biotechnology; ZZ900 Techniques and Methodology

BT Geraniaceae; Geriales; dicotyledons; angiosperms; Spermatophyta; plants; prokaryotes

CT plant pathogens; plant pathogenic bacteria; molecular genetics; DNA; nucleotide sequences; polymerase chain reaction; identification; techniques; ornamental plants; biotechnology; plant pathology

ST *Xanthomonas hortorum* pv. *pelargonii*

ORGN Pelargonium; bacteria

L1 ANSWER 42 OF 284 CABA COPYRIGHT 2001 CABI  
AN 95:183847 CABA  
DN 952310559  
TI Association of Rhodococcus (*Corynebacterium*) **fascians**  
with the stunting-fasciation syndrome of carnation in Israel  
AU Zutra, D.; Cohen, J.; Gera, A.; Loebenstein, G.; Mokra, V. [EDITOR];  
Brunt, A. [EDITOR]; Derkx, T. [EDITOR]; Zaayen, A. van [EDITOR]  
CS Deparment of Plant Pathology and Virology, The Volcani Center, Bet Dagan  
50250, Israel.  
SO Acta Horticulturae, (1994) No. 377, pp. 319-323. 8 ref.  
Meeting Info.: Eighth international symposium on virus diseases of  
ornamental plants, held in Prague, Czech Republic, 24-28 August 1992.  
ISSN: 0567-7572; ISBN: 90-6605-326-7  
DT Conference Article; Journal  
LA English  
AB A disease causing stunting of carnation plants and fasciation and  
deformation of flowers has been found in Israel in several locations since  
1985. Symptoms resemble 'mal del prezzemolo' found in Italy. Attempts to  
transmit this disease mechanically to carnations and to various herbaceous  
test plants were unsuccessful. Neither was transmission obtained when >60  
carnation plants were grafted with diseased scions. When symptomatic  
plants were transferred from the growers greenhouse to Bet Dagan symptoms  
at first disappeared, but appeared stronger later. In additional  
experiments, a Gram positive non-motile bacterium was consistently  
isolated from symptomatic plants and was identified as Rhodococcus  
**fascians** using immunological techniques, and it is suggested that this  
bacterium is involved in fasciation disease of carnations.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
GT Israel  
BT pathogens; bacteria; prokaryotes; plant pathogens; plants; Dianthus;  
Caryophyllaceae; Caryophyllales; dicotyledons; angiosperms; Spermatophyta;  
Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes;  
Developed Countries; Mediterranean Region; Middle East; West Asia; Asia  
CT plant diseases; plant pathogens; plant pathogenic bacteria; ornamental  
plants; carnations; plant pathology  
ST International symposium on virus diseases of ornamental plants  
ORGN Dianthus caryophyllus; Rhodococcus **fascians**; bacteria

L1 ANSWER 43 OF 284 CABA COPYRIGHT 2001 CABI  
AN 93:89221 CABA  
DN 930322857  
TI Narciclasine: 1H- and 13C-NMR data and a new improved method of  
preparation  
AU Evidente, A.  
CS Dipartimento di Scienze Chimico-Agrarie, Universita di Napoli 'Federico  
II', 80055 Portici, Italy.  
SO Planta Medica, (1991) Vol. 57, No. 3, pp. 293-295. 10 ref.  
ISSN: 0032-0943  
DT Journal  
LA English  
AB Narciclasine has been shown to possess antimitotic activity, activity  
against the bacterium *Corynebacterium* **fascians**  
[Rhodococcus **fascians**], and to inhibit ascorbic acid biosynthesis in  
potato tuber slices. 1H- and 13C-NMR analyses allowed the proton and carbon  
shifts of narciclasine to be identified. A new method of extracting  
narciclasine from plant materials is described. When applied to bulbs of  
Sternbergia lutea and Narcissus tazetta [N. tazetta], it gave  
significantly higher yields than the classic ethanolic extraction method.  
CC FF040 Plant Composition

GT Italy  
BT plants; Sternbergia; Amaryllidaceae; Liliales; monocotyledons;  
angiosperms; Spermatophyta; Narcissus; Southern Europe; Europe;  
Mediterranean Countries  
CT bulbs; composition; Alkaloids; extraction; medicinal plants  
ORGN Sternbergia lutea; Narcissus tazetta

L1 ANSWER 44 OF 284 CABA COPYRIGHT 2001 CABI  
AN 91:145962 CABA  
DN 912313603  
TI Rapid identification of cytokinins by an immunological method  
AU Morris, R. O.; Jameson, P. E.; Laloue, M.; Morris, J. W.  
CS Department of Biochemistry, University of Missouri-Columbia, Columbia, MO  
65211, USA.  
SO Plant Physiology, (1991) Vol. 95, No. 4, pp. 1156-1161. 28 ref.  
ISSN: 0032-0889  
DT Journal  
LA English  
AB A method for rapid identification of bacterial cytokinins was developed in which cultures were fed [<sup>3</sup>H]adenine. The cytokinins (including <sup>3</sup>H-labelled cytokinins) were isolated by immunoaffinity chromatography, and analyzed by HPLC with on-line scintillation counting. Analysis of Agrobacterium tumefaciens strains showed that some produced primarily trans-zeatin, whereas others produced trans-zeatin riboside. *Pseudomonas syringae* pv. savastanoi produced mixtures of trans-zeatin, dihydrozeatin, 1'-methyl-trans-zeatin riboside, and other unknown cytokinin-like substances. *Corynebacterium fascians* produced cis-zeatin, 2iP and isopentenyladenosine. The technique was designed to be qualitative rather than quantitative.  
CC FF060 Plant Physiology and Biochemistry; FF100 Plant Production; WW000  
Biotechnology  
BT plant growth regulators; cytokinins; prokaryotes  
CT Cytokinins; immunoassay; Zeatin; isopentenyladenine; Immunological techniques; plant growth regulators; biotechnology  
ST Zeatin, dihydro-; Adenosine, isopentenyl-  
RN 1637-39-4; 2365-40-4  
ORGN bacteria

L1 ANSWER 45 OF 284 CABA COPYRIGHT 2001 CABI  
AN 89:3355 CABA  
DN 890391463  
TI Structure and antibacterial activity of plantamajoside, a caffeic acid sugar ester from *Plantago major* subsp. *major*  
AU Ravn, H.; Brimer, L.  
CS Royal Danish School of Pharmacy, Department of Pharmacognosy and Botany, 2  
Universitetsparken, 2100 Copenhagen, Denmark.  
SO Phytochemistry, (1988) Vol. 27, No. 11, pp. 3433-3437. 18 ref.  
ISSN: 0031-9422  
DT Journal  
LA English  
AB The structure of plantamajoside, a phenylpropanoid glycoside isolated from *P. major* subsp. *major* leaves, was deduced from chemical, spectral and other physical evidence, to be 3,4-dihydroxy- beta -phenethyl-O- beta -D-glucopyranosyl-(1 right arrow 3)-4-O-caffeoylel- beta -D-glucopyranoside. The Minimum Inhibitory Concentration values were evaluated for 7 plant pathogenic bacteria (Agrobacterium tumefaciens, *Corynebacterium fascians*, *C. rathayi*, *C. sepedonicum*, *Erwinia carotovora* subsp. *carotovora*, *Pseudomonas syringae* and *Xanthomonas* [campestris pv.] *pelargonii*) and for *Escherichia coli* (ML 30) and *Staphylococcus aureus* (502 A) after preliminary investigations by the agar diffusion method.



cultivated or the weed species. *B. nigra* and tomato appeared to be the species most susceptible to the methanolic extract of the fronds. The effect on the growth of 4 species of phytopathogenic fungi (*Helminthosporium sativum*, *Rhizoctonia solani*, *Alternaria tenuis*, *Fusarium* sp.) and 4 phytopathogenic bacteria (*Xanthomonas campestris*, *X. phaseoli*, *Pseudomonas syringae*, *Corynebacterium fascians*) was also tested. The fungal growth was strongly inhibited by the aqueous extract, and this inhibitory activity was maintained throughout the experiment. In the bioassays with methanolic and ethanolic extracts, some of the fungi tended to recover. The diluted aqueous fraction (1:10) of the methanolic extract stimulated the growth of all the fungi tested. The aqueous extract inhibited only the growth of the sole gram-positive bacteria species among those tested.

CC FF060 Plant Physiology and Biochemistry; FF100 Plant Production; FF500 Weeds and Noxious Plants; FF700 Plant Disorders and Injuries (Not caused directly by Organisms)

BT plants; fatty oil plants; oil plants; Spermatophyta; *Pteridium*; *Dennstaedtiaceae*; ferns; *Pteridophyta*; *Momordica*; *Cucurbitaceae*; *Violales*; dicotyledons; angiosperms; *Sida*; *Malvaceae*; *Malvales*; *Brassica*; *Cruciferae*; *Capparidales*; *Capsicum*; *Solanaceae*; *Solanales*; *Arachis*; *Leguminosae*; *Fabales*; *Sesamum*; *Pedaliaceae*; *Scrophulariales*; *Portulaca*; *Portulacaceae*; *Caryophyllales*; *Zea*; *Gramineae*; *Cyperales*; monocotyledons; *Lycopersicon*

CT Allelopathins; ecology; allelopathy; *Maize*; weeds; Groundnuts; Tomatoes; Sesame; seed germination; roots; germination; oilseed plants; plant growth regulators

ST *Neurolaena lobata*; *Mikania cordifolia*; *Pachyrhizus erosus*

ORGN *Pteridium aquilinum*; *Momordica charantia*; *Sida rhombifolia*; *Brassica nigra*; *Capsicum annuum*; *Arachis hypogaea*; *Sesamum indicum*; *Portulaca oleracea*; *Zea mays*; *Lycopersicon esculentum*; *Pteridium*; *Capsicum*; *Arachis*; *Sesamum*; *Brassica*; *Zea*; *Lycopersicon*

L1 ANSWER 48 OF 284 CABA COPYRIGHT 2001 CABI

AN 87:2905 CABA

DN 871321043

TI Avirulent isolates of *Corynebacterium fascians* that are unable to utilize agmatine and proline

AU Sabart, P. R.; Gakovitch, D.; Hanson, R. S.

CS Gray Freshwater Biol. Inst., Univ. Minnesota, Navarre, MN 55392, USA.

SO Applied and Environmental Microbiology, (1986) Vol. 52, No. 1, pp. 33-36. 11 ref.

ISSN: 0099-2240

DT Journal

LA English

AB Growth of a highly virulent str. of the phytopathogen C. [Rhodococcus] fascians on rich media at 37 deg C resulted in a loss of virulence in a majority of the population within 10 generations. Strs. retained virulence during culture at 30 deg on a minimal medium with NH3 as N source. Populations of avirulent str. on the surfaces of pea seedlings decreased, whereas the number of cells of the virulent str. increased 1000-fold during a 3-wk period. All avirulent mutants isolated by growth on rich media at 37 deg were unable to grow on media containing agmatine or proline as sole N sources. The ability of the mutants to grow on pea seedlings and cause fasciation appeared to be related to their ability to utilize N sources available on plant surfaces.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

BT *Rhodococcus* (bacteria); *Nocardiaceae*; *Actinomycetales*; *Firmicutes*; bacteria; prokaryotes; *Leguminosae*; *Fabales*; dicotyledons; angiosperms; *Spermatophyta*; plants

CT Peas; *Rhodococcus fascians*; nutrition; virulence; grain legumes; plant

pathogenic bacteria; plant pathology  
ORGN bacteria

L1 ANSWER 49 OF 284 CABA COPYRIGHT 2001 CABI  
AN 86:121012 CABA  
DN 861320217  
TI Studies on the diagnosis of foreign bacterial diseases of quarantine significance. V. A selective medium for isolation and detection of **Corynebacterium fascians**  
AU Takayama, M.; Kawai, A.; Suetsugu, T.  
CS Yokohama Pl. Prot. Sta., Yokohama, Japan.  
SO Research Bulletin of the Plant Protection Service, Japan, (1985) No. 21, pp. 33-40. 13 ref.  
ISSN: 0387-0707  
DT Journal  
LA Japanese  
AB On this modified selective medium, described, orange-coloured colonies of *C. fascians* appeared after incubation for 7 d at 25 deg C, and could be distinguished from other bacterial colonies. The medium is suitable for the isolation of *C. fascians* from sweet pea diseased tissue and rhizosphere soil, for plant quarantine inspection.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ900 Techniques and Methodology; DD500 Laws and Regulations  
GT Japan  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Lathyrus; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; East Asia; Asia  
CT Sweet peas; RHODOCOCCUS FASCIANS; culture media; isolation; quarantine; Soil; Techniques; Legislation; ornamental plants; plant pathogenic bacteria; plant pathology  
ORGN bacteria; Lathyrus odoratus

L1 ANSWER 50 OF 284 CABA COPYRIGHT 2001 CABI  
AN 85:107169 CABA  
DN 851310125  
TI A mutant of **Corynebacterium fascians** without the capacity to utilize benzoic acid  
AU Ivoilov, V. S.; Karasevich, Yu. N.; Surovtseva, E. G.  
CS Inst. Microbiol., Soviet Acad. Sci., Moscow, USSR.  
SO Mikrobiologiya, (1985) Vol. 54, No. 3, pp. 502-504. 2 graphs. 5 ref.  
ISSN: 0026-3656  
DT Journal  
LA Russian  
SL English  
AB The str. utilized p-fluorobenzoic acid as a carbon source, but could not assimilate its natural analogue benzoic acid, because the enzyme catalysing lactonization of cis,cis-muconic acid was inactivated.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes  
CT RHODOCOCCUS FASCIANS; mutants; benzoic acid; Induced mutations; plant pathogenic bacteria; plant pathology  
RN 65-85-0  
ORGN bacteria

L1 ANSWER 51 OF 284 CABA COPYRIGHT 2001 CABI  
AN 84:141584 CABA  
DN 841302042  
TI **Corynebacterium fascians**: phytopathogenicity and numerical analysis of phenotypic features

AU Elia, S.; Gossele, F.; Vantomme, R.; Swings, J.; Ley, J. de  
CS IWONL, Lab. Microbiol. Microbiele Genetica, RUG, Ghent, Belgium.  
SO Phytopathologische Zeitschrift, (1984) Vol. 110, No. 2, pp. 89-105. 2  
fig., 4 tab. 42 ref.  
DT Journal  
LA English  
SL German  
AB The 44 *C. fascians* stra. and 13 other identified and unidentified  
bacterial stra. from different geographical origins and host plants were  
characterized by their pathogenicity towards *Lilium longiflorum* cv. White  
Europe, *Pelargonium zonale* and sweet pea, together with 206 morphological,  
biochemical and physiological features. Symptoms on lilies are described.  
Numerical analysis of the phenotypic features using the Ssm similarity  
coefficient and the av. unweighted pair-group clustering method revealed  
that all *C. fascians* stra. formed a rather homogeneous cluster: > 80% Ssm  
existed between the 44 *C. fascians* stra. from phenon II. From these  
results the reclassification of *C. fascians* as *Rhodococcus rhodochrous* is  
not indicated, although *C. fascians* is said to remain a 'species in search  
of a genus'.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ380 Taxonomy and  
Evolution  
BT *Rhodococcus* (bacteria); *Nocardiaceae*; *Actinomycetales*; *Firmicutes*;  
bacteria; prokaryotes; *Lilium*; *Liliaceae*; *Liliales*; monocotyledons;  
angiosperms; *Spermatophyta*; plants; *Pelargonium*; *Geraniaceae*; *Geriales*;  
dicotyledons; *Lathyrus*; *Leguminosae*; *Fabales*  
CT RHODOCOCCUS FASCIANS; characteristics; hosts; pathogenicity; taxonomy;  
Sweet peas; plant pathogenic bacteria; plant pathology  
ORGN *Lilium longiflorum*; *Pelargonium zonale*; bacteria; *Lathyrus odoratus*

L1 ANSWER 52 OF 284 CABA COPYRIGHT 2001 CABI  
AN 84:141535 CABA  
DN 841301988  
TI Reclassification of *Corynebacterium fascians* (Tilford)  
Dowson in the genus *Rhodococcus*, as *Rhodococcus fascians* comb. nov  
AU Goodfellow, M.  
CS Dep. Microbiol., Medical School, Univ. Newcastle-upon-Tyne, UK.  
SO Systematic and Applied Microbiology, (1984) Vol. 5, No. 2, pp. 225-229. 40  
ref.  
ISSN: 0723-2020  
DT Journal  
LA English  
AB Chemical, genetical and phenetic data indicate a close relationship  
between *C. fascians* (which causes leaf galls and fasciation) and  
representatives of the genus *Rhodococcus*. It is proposed that *C. fascians*  
be reclassified as the new comb. *R. fascians*.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT *Rhodococcus* (bacteria); *Nocardiaceae*; *Actinomycetales*; *Firmicutes*;  
bacteria; prokaryotes  
CT RHODOCOCCUS FASCIANS; nomenclature; plant pathogenic bacteria; plant  
pathology  
ORGN bacteria

L1 ANSWER 53 OF 284 CABA COPYRIGHT 2001 CABI  
AN 84:91356 CABA  
DN 841399184  
TI A 78-megadalton plasmid occurs in avirulent strains as well as virulent  
strains of *Corynebacterium fascians*  
AU Lawson, E. N.; Gantotti, B. V.; Starr, M. P.  
CS Dep. Bacteriol., Univ. California, Davis, Calif. 95616, USA.  
SO Current Microbiology, (1982) Vol. 7, No. 6, pp. 327-332. 2 fig., 1 tab. 20

ref.  
ISSN: 0343-8651  
DT Journal  
LA English  
AB Each of the 10 wild-type strs. of *C. fascians*, which differed in degree of virulence as measured by ability to cause hyperplasias in pea seedlings, harboured a single 78 Mdal plasmid. The relationship of these plasmids to phytopathogenicity remains uncertain.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes  
CT RHODOCOCCUS FASCIANS; plasmid vectors; virulence; plant pathogenic bacteria; plant pathology  
ORGN bacteria

L1 ANSWER 54 OF 284 CABA COPYRIGHT 2001 CABI  
AN 84:79165 CABA  
DN 841398121  
TI Phenotypic and phytopathological characterization of *Corynebacterium fascians*  
AU Elia, S.; Gossele, F.; Genetello, C.; Swings, J.; Montagu, M. Van; Ley, J. de  
CS Lab. Microbiol. Microbiele Genetica, Ghent, Belgium.  
SO Mededelingen van de Faculteit Landbouwwetenschappen Rijksuniversiteit Gent, (1983) Vol. 48, No. 3, pp. 677-683. 1 fig., 1 tab. 22 ref.  
DT Conference Article; Journal  
LA English  
AB A numerical analysis of 206 phenotypic features revealed considerable homogeneity among 44 *C. fascians* isolates from different geographical origins and host plants. The taxonomic position of *C. fascians* is discussed. Pathogenicity tests on *Lilium longiflorum*, *Pelargonium zonale* var. *adonis* and *Lathyrus odoratus* needed a long incubation time or gave variable results. A more rapid and reproducible test on a more sensitive host, *Petunia*, revealed 4, 34 and 6 str. respectively, that were not pathogenic, pathogenic and strongly pathogenic. These 6 str. were also pathogenic to tobacco.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; ZZ380 Taxonomy and Evolution  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; *Lilium*; Liliaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; plants; Solanaceae; Solanales; dicotyledons; *Lathyrus*; Leguminosae; Fabales  
CT RHODOCOCCUS FASCIANS; hosts; phenotypes; pathogenicity; taxonomy; Sweet peas; Tobacco; plant pathogenic bacteria; plant pathology  
ST *Pelargonium zonale* var. *adonis*; International on phytopharmacy and phytiatry  
ORGN *Lilium longiflorum*; *Petunia*; bacteria; *Lathyrus odoratus*; *Nicotiana*

L1 ANSWER 55 OF 284 CABA COPYRIGHT 2001 CABI  
AN 84:70597 CABA  
DN 841397784  
TI *Corynebacterium fascians* (Tilford 1936) Dowson 1942, the causal agent of leafy gall on lily crops in Belgium  
AU Vantomme, R.; Elia, S.; Swings, J.; Ley, J. de  
CS Univ. Ghent, Belgium.  
SO Parasitica, (1982) Vol. 38, No. 4, pp. 183-192. 4 fig., 3 tab. 21 ref.  
ISSN: 0031-1812  
DT Journal  
LA English  
SL Dutch

AB Symptoms and morphological, biochemical and physiological characters of the pathogen are described.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

GT Belgium

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Liliaceae; Liliales; monocotyledons; angiosperms; Spermatophyta; Western Europe; Europe

CT RHODOCOCCUS FASCIANS; symptoms; ornamental plants; plant pathogenic bacteria; plant pathology

ORGN *Lilium*; bacteria

L1 ANSWER 56 OF 284 CABA COPYRIGHT 2001 CABI

AN 84:59670 CABA

DN 841396777

TI Association of ***Corynebacterium fascians*** with fasciation disease of Impatiens and Hebe in California

AU Cooksey, D. A.; Keim, R.

CS Univ. California, Riverside, USA.

SO Plant Disease, (1983) Vol. 67, No. 12, pp. 1389.

ISSN: 0191-2917

DT Journal

LA English

AB Stem fasciations caused by the bacterium were observed on c. 90% of 1-yr-old Miniature Pink *I. wallerana* plants and c. 20% of 1-yr-old *Rubra R. speciosa* and *Variegata H. elliptica* plants, all new host records.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

GT California

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; Scrophulariaceae; Scrophulariales; dicotyledons; angiosperms; Spermatophyta; Balsaminaceae; Geraniales; Pacific States of USA; Western States of USA; USA; North America; America

CT RHODOCOCCUS FASCIANS; Records; hosts; ornamental plants; plant pathogenic bacteria; plant pathology

ST Impatiens

ORGN *Hebe*; *Impatiens*; bacteria

L1 ANSWER 57 OF 284 CABA COPYRIGHT 2001 CABI

AN 83:69098 CABA

DN 831389172

TI Isolation of some strains of ***Corynebacterium fascians*** (Tilford) Dowson in Czechoslovakia

AU Ulrychova, M.; Petru, E.

CS Inst. Exp. Bot., Acad. Sci., Prague, Czechoslovakia.

SO Biologia Plantarum, (1983) Vol. 25, No. 1, pp. 63-67. 1 tab. 14 ref.

ISSN: 0006-3134

DT Journal

LA English

AB Two highly virulent and 1 avirulent str., producing acid from rhamnose, were isolated from fasciations on *Pelargonium zonale*. An avirulent str. was isolated from a celery root explant on a nutrient in vitro. Morphological, cultural, physiological and biochemical characters were compared with an American patented str.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants

GT Czechoslovakia

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; *Pelargonium*; Geraniaceae; Geraniales; dicotyledons; angiosperms; Spermatophyta; plants; *Apium*; Umbelliferae; Apiales; Central Europe; Europe

CT celery; RHODOCOCCUS FASCIANS; strains; plant pathogenic bacteria; plant pathology

ORGN Pelargonium zonale; bacteria; Apium graveolens

L1 ANSWER 58 OF 284 CABA COPYRIGHT 2001 CABI  
AN 83:67889 CABA  
DN 821387616  
TI Quantitative analysis of free amino acids in either leafy gall induced by **Corynebacterium fascians** or its tissue culture  
AU El-Wakil, M.; Blakeny, E.  
CS Mansoura Univ., Egypt.  
SO Egyptian Journal of Phytopathology, (1980) Vol. 12, No. 1/2, pp. 145-148.  
1 tab. 13 ref.  
ISSN: 0301-8180  
DT Journal  
LA English  
SL Arabic  
AB Free amino acid levels were generally lower than normal in gall tissues of Datura innoxia and gall tissue cultures, but levels of phenylalanine and lysine were considerably higher. Arginine levels were 17 times as high in leafy gall tissue cultures than in normal tissue cultures.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Datura; Solanaceae; Solanales; dicotyledons; angiosperms; Spermatophyta; plants  
CT RHODOCOCCUS FASCIANS; amino acids; host parasite relationships; plant pathogenic bacteria; plant pathology  
ST Datura innoxia  
ORGN bacteria; DATURA FASTUOSA

L1 ANSWER 59 OF 284 CABA COPYRIGHT 2001 CABI  
AN 83:15283 CABA  
DN 830314303  
TI Hot water treatment of Lilium longiflorum bulbs  
De warmwaterbehandeling van Lilium longiflorum  
AU Kruyer, C. J.; Boontjes, J.  
CS Laboratorium voor de Bloembollenonderzoek, Lisse, Netherlands.  
SO Bloembollencultuur, (1982) Vol. 93, No. 25, pp. 622-623. 1 pl.  
ISSN: 0165-6406  
DT Journal  
LA Dutch  
AB Planting stock of Lilium longiflorum cv. White Europe survived hot water treatment at 39 deg C for 2 h better than at 41 deg . Losses at the higher temperature were considerable. Nematodes and leafy gall disease [ **Corynebacterium fascians** ] were controlled adequately at 39 deg in this trial, but it is recommended that commercial formalin at 0.5% should be added to the tank to ensure C. fascians control.  
CC FF100 Plant Production; HH000 Pathogen, Pest and Parasite Management (General); FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT pesticides; Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; animals; plants; ornamental plants; Spermatophyta; Nematoda; invertebrates; Lilium; Liliaceae; Liliales; monocotyledons; angiosperms  
CT bulbs; treatment; bactericides; heat; diseases; RHODOCOCCUS FASCIANS; pests; hot water treatment; control; ornamental plants; ornamental bulbs; plant parasitic nematodes; plant nematology; nematology  
ST Formalin; Ornamentals, bulbs  
ORGN Lilium longiflorum; Lilium; Nematoda

L1 ANSWER 60 OF 284 CABA COPYRIGHT 2001 CABI  
AN 83:11381 CABA  
DN 830313412

TI Stimulation and inhibition reactions in plants infected by **Corynebacterium fascians** (Tilford) Dowson

AU Roussaux, J

AV DNAL (421 M33)

SO Marcellia, Oct 1975 Vol. 38, No. 4, pp. 305-310. Ref.

DT Journal; Article

LA English

CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 29 OF 284 AGRICOLA  
AN 77:10908 AGRICOLA  
DN 77-9010581

TI Cytokinins in **Corynebacterium fascians** cultures: isolation and identification of 6-(4-hydroxy-3-methyl-cis-2-butenylamino)-2-methylthiopurine [tobacco bioassay]

AU Armstrong, D J; Scarbrough, E; Skoog, F; Cole, D L; Leonard, N J

AV DNAL (450 P692)

SO Plant Physiol, Dec 1976 Vol. 58, No. 6, pp. 749-752. Ref.

DT Journal; Article

LA English

CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 30 OF 284 AGRICOLA  
AN 76:2173 AGRICOLA  
DN 76-9002180

TI The relation between the shoots of plants inoculated with [witches' broom] **Corynebacterium fascians** [Peas]  
Relations entre bourgeons dans les plantes inoculees avec **Corynebacterium fascians**

AU Roussaux, J; Horrelt, M

AV DNAL (470 C16C)

SO Can J Bot, Sept 1, 1975 Vol. 53, No. 17, pp. 1934-1941. Ref. Eng. Sum.

DT Journal; Article

LA French

CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 31 OF 284 AGRICOLA  
AN 76:1292 AGRICOLA  
DN 76-9001299

TI Stimulation and inhibition reactions in [pea] plants infected by **Corynebacterium fascians** (Tilford) Dowson

AU Roussaux, J

AV DNAL (421 M33)

SO Marcellia, Oct 1975 Vol. 38, No. 4, pp. 305-310. Ref.

DT Journal; Article

LA English

CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 32 OF 284 AGRICOLA  
AN 75:112822 AGRICOLA  
DN 75-9114710

TI Persistence of pea cotyledons induced by **Corynebacterium fascians**

AU Oduro, K A; Munnecke, D E

AV DNAL (464.8 P56)

SO Phytopathology, Oct 1975 Vol. 65, No. 10, pp. 1114-1116.

DT Journal; Article

LA English

CC 4510 Plant Bacterial Diseases and Control (1972-79)

GTO Scotland

L1 ANSWER 24 OF 284 AGRICOLA  
AN 78:54731 AGRICOLA  
DN 78-9034002  
TI Isolation and identification of ribosyl-cis-zeatin from transfer RNA of  
**Corynebacterium fascians** [casual bacterium of the  
fasciation disease]  
AU Einset, J W; Skoog, F K  
AV DNAL (442.8 B5236)  
SO Biochem Biophys Res Commun, Dec 21, 1977 Vol. 79, No. 4, pp. 117-1121.  
Ref.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)  
RN 9014-25-9 (TRANSFER RNA)

L1 ANSWER 25 OF 284 AGRICOLA  
AN 78:22431 AGRICOLA  
DN 78-9015382  
TI In vivo and in vitro interactions between Agrobacterium tumefaciens and  
**Corynebacterium fascians** [Datura innoxia]  
AU El-Goorani, M A; Abo-El-Dahab, M K; El-Wakil, M A  
CS U.S. Agricultural Research Service  
AV DNAL (1.9 P69P)  
SO Plant Dis Rep, Nov 1977 Vol. 61, No. 11, pp. 963-967. Ref.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 26 OF 284 AGRICOLA  
AN 77:78255 AGRICOLA  
DN 77-9102732  
TI Bacterial [**Corynebacterium fascians**] fasciation of  
Pelargonium hortorum in Hungary  
AU Sule, S  
AV DNAL (SB731.A3)  
SO Acta Phytopathol, 1976 Vol. 11, No. 3/4, pp. 223-230. Ref.  
DT Journal; Article  
LA English  
CC 4510 Plant Bacterial Diseases and Control (1972-79)  
GTO Hungary

L1 ANSWER 27 OF 284 AGRICOLA  
AN 77:27055 AGRICOLA  
DN 77-9025436  
TI Bacterial [corm] tumor of Gladiolus [caused by **Corynebacterium**  
**fascians**]  
Bakterialni nadorovitost gladiolu  
AU Zacha, V  
AV DNAL (464.8 SB5)  
SO Sb UVTI, Ochr Rostl Cesk Akad Zemed (Ustav Vedeckotech Inf), May 1975 Vol.  
11, No. 2, pp. 163-164.  
DT Journal; Article  
LA Czech  
CC 4510 Plant Bacterial Diseases and Control (1972-79)

L1 ANSWER 28 OF 284 AGRICOLA  
AN 77:18738 AGRICOLA  
DN 77-9018653

RL: BIOL (Biological study)  
(sacB, in mobilisable plasmid for identification of mobile genetic elements in *Corynebacterium*, selectable marker in relation to)

IT Genetic element  
RL: PROC (Process)  
(transposable element, in *Corynebacterium*, detection of, plasmid for)

IT 152143-47-0 152143-48-1  
RL: PRP (Properties)  
(amino acid sequence of, cloning of insertion element in, method for)

IT 152143-46-9  
RL: PRP (Properties); BIOL (Biological study)  
(nucleotide sequence and cloning of)

IT 57-50-1, Sucrose, analysis  
RL: PRP (Properties)  
(resistance to high levels of, inactivation of *Bacillus* sacB gene in *Corynebacterium* for, detection of mobile genetic elements in relation to)

L1 ANSWER 109 OF 284 CAPLUS COPYRIGHT 2001 ACS  
AN 1993:644812 CAPLUS  
DN 119:244812  
TI A rapid technique for assessing the cytokinin biosynthetic capacity of microorganisms  
AU Jameson, P. E.; Morris, R. O.; Laloue, M.; Morris, J. W.  
CS Dep. Biochem., Univ. Missouri, Columbia, MO, 65211, USA  
SO Physiol. Biochem. Cytokinins Plants, Symp. (1992), Meeting Date 1990, 473-5. Editor(s): Kaminek, Miroslav; Mok, David W. S.; Zazimalova, Eva. Publisher: SPB Acad. Publ., The Hague, Neth.  
CODEN: 59KXA9  
DT Conference  
LA English  
CC 9-8 (Biochemical Methods)  
Section cross-reference(s): 10, 11  
AB The basis for the method of R. O. Morris and M. Laloue is simple: cells are grown in the presence of [<sup>3</sup>H]adenine and the labeled cytokinins are isolated from the culture media and purified by immunoaffinity chromatog. on immobilized anticytokinin antibody columns. The cytokinins then are characterized by HPLC on octadecylsilica and online monitoring of radioactivity in the HPLC effluent. This technique was applied to a range of microorganisms (*Agrobacterium tumefaciens*, *Escherichia coli*, *Pseudomonas syringae* savastanoi, and ***Corynebacterium fascians***) and the procedure provides sufficient information to confidently characterize known cytokinins. A comparison of cytokinin prodn. by *A. tumefaciens* strains C58, B3/73, and M2/73 is presented here.  
ST microorganism cytokinin biosynthesis detn radioassay; *Agrobacterium* cytokinin biosynthesis detn  
IT *Agrobacterium tumefaciens*  
Bacteria  
Microorganism metabolism  
(cytokinins formation by, radioassay of)  
IT Plant hormones and regulators  
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(cytokinins, biosynthesis of, by microorganisms, radioassay of)

L1 ANSWER 110 OF 284 CAPLUS COPYRIGHT 2001 ACS  
AN 1993:209325 CAPLUS  
DN 118:209325  
TI ***Corynebacterium fascians***: cytokinin production is positively correlated with virulence

pea were found in the morphological cycle and excretion of carotenoid substances. Bacterial density was max. on the leaf cuticle. Growth on the plant and pathogenicity were not correlated. Pathogenicity was max. after asparagine and thiamine were added to the inoculum and in the decline phase of growth. The ecological significance of some features of growth of *C. fascians* on pea is discussed.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants  
CT PEAS; RHODOCOCUS FASCIANS; grain legumes; plant pathogenic bacteria; plant pathology  
ST growth and pathogenicity  
ORGN bacteria

L1 ANSWER 63 OF 284 CABA COPYRIGHT 2001 CABI  
AN 81:68449 CABA  
DN 811371998  
TI Selective toxicity of isoflavanoid phytoalexins to Gram-positive bacteria  
AU Gnanamanickam, S. S.; Smith, D. A.  
CS Hull Univ., UK.  
SO Phytopathology, (1980) Vol. 70, No. 9, pp. 894-896. 1 fig., 1 tab. 19 ref.  
ISSN: 0031-949X  
DT Journal  
LA English  
AB The phytoalexins, kievitone and phaseollin, from French bean [*Phaseolus vulgaris*] were selectively toxic to Gram + bacteria. In a standard paper disk bioassay 10-50  $\mu$ g kievitone or phaseollin inhibited the growth of 7 Gram + but none of the 8 Gram -, bacteria tested. Phaseollidin and phaseollin isoflavan also possessed this selective toxicity to Gram + bacteria. Only 2  $\mu$ g kievitone (0.56 X 10<sup>-8</sup>mole), the most toxic of the compounds examined, inhibited the growth of ***Corynebacterium fascians***, *Bacillus subtilis* and *Micrococcus luteus*.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants  
BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; Leguminosae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; *Bacillus*; *Bacillaceae*; *Micrococcus*; *Micrococcaceae*  
CT RHODOCOCUS FASCIANS; effects; phytoalexins; grain legumes; plant pathogenic bacteria; plant pathology  
ORGN *Bacillus subtilis*; *Micrococcus luteus*; bacteria

L1 ANSWER 64 OF 284 CABA COPYRIGHT 2001 CABI  
AN 80:72665 CABA  
DN 801366240  
TI Production of dahlia tubers and current phytosanitary problems  
La production des tubercules de dahlia et ses problemes phytosanitaires actuels  
AU Vidalie, H.; Digat, B.; Girard, J.-J.  
CS ENITA (H.), Angers, France.  
SO Revue Horticole, (1980) No. 208, pp. 13-25. 16 fig. (6 col.), 10 diag. 8 ref.  
DT Journal  
LA French  
AB An account is given of symptoms of and measures against dahlia mosaic, cucumber mosaic and tomato ringspot viruses; *Agrobacterium tumefaciens*, ***Corynebacterium fascians*** and *Erwinia chrysanthemi*, and also their biology; and *Botrytis cinerea*, *Entyloma dahliae*, *Erysiphe cichoracearum*, *Fusarium* sp., *Pythium debaryanum*, *Rhizoctonia solani*, *Sclerotinia sclerotiorum* and *Verticillium albo-atrum*.  
CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; HH000 Pathogen,

Pest and Parasite Management (General)

GT France

BT Rhodococcus (bacteria); Nocardiaceae; Actinomycetales; Firmicutes; bacteria; prokaryotes; plants; ornamental plants; Spermatophyta; Compositae; Asterales; dicotyledons; angiosperms; Agrobacterium; Rhizobiaceae; Gracilicutes; Erwinia; Enterobacteriaceae; Botrytis; Deuteromycotina; Eumycota; fungi; Entyloma; Ustilaginales; Basidiomycotina; Erysiphe; Erysiphales; Ascomycotina; Pythium; Peronosporales; Mastigomycotina; Rhizoctonia; Sclerotinia; Helotiales; Verticillium; Pezizales; nepovirus group; plant viruses; viruses; cucumber virus group; Western Europe; Europe; Mediterranean Countries

CT diseases; RHODOCOCUS FASCIANS; production; cultural methods; ornamental plants; ornamental bulbs; plant pathogenic bacteria; plant pathology

ST tuber production; Dahlia mosaic virus; tomato ringspot virus; cucumber mosaic virus

ORGN Dahlia; Agrobacterium tumefaciens; Erwinia chrysanthemi; Botrytis cinerea; Entyloma dahliae; Erysiphe cichoracearum; Fusarium; Pythium debaryanum; Rhizoctonia solani; Sclerotinia sclerotiorum; Verticillium albo-atrum; tuber; bacteria; TOMATO RINGSPOT NEPOVIRUS; CUCUMBER MOSAIC CUCUMOVIRUS

L1 ANSWER 65 OF 284 CABA COPYRIGHT 2001 CABI

AN 80:72152 CABA

DN 801361667

TI Microbial ecology

AU Kemp, D. R.; Taylor, J. B.; Tseng, P. S.; Blackie, M. J.; Close, R. C.; Newhook, F. J.; Halsall, D. M.; Tippett, J. T.; Weste, G.; Nesbitt, H. J.; Malajczuk, N.; Glenn, A. R.; Loutit, M. W. [EDITOR]; Miles, J. A. R. [EDITOR]

SO Microbial ecology, (1978) pp. 452. ISBN 3-540-08974-8; 0-387-08974-8. Publisher: Springer-Verlag. Berlin\Heidelberg, New York

CY Meeting Info.: Microbial ecology.

DT Germany, Federal Republic of

LA Conference

AB English

AB Selected papers are published from the 240 presented at the 1st International Symposium on Microbial Ecology, Univ. Otago, Dunedin, New Zealand, 22-26 Aug. 1977. Papers on mycorrhiza are among those in the section on the plant rhizosphere. The plant diseases section includes: Kemp, D.R. Indole-3Ylacetic acid metabolism of **Corynebacterium fascians** (341-345, 13 ref., 2 fig., 2 tab.). Taylor, J.B. The source of infections by basidiomycete fungi causing a decline and replant disease in central Otago, New Zealand (346-349, 5 ref., 1 fig., 1 tab.). On stone fruit. Tseng, P.S.; Blackie, M.J.; Close, R.C. Systems analysis as a strategy for agroecosystem management: the barley leaf rust epidemic (350-352, 9 ref., 1 fig.). Puccinia hordei. Newhook, F.J. Phytophthora cinnamomi in native forests of Australia and New Zealand: indigenous or introduced? (353-359, 29 ref., 2 fig.). Halsall, D.M. Examination of a forest soil suppressive to Phytophthora cinnamomi (360-363, 5 ref., 2 fig., 3 tab.). Tippett, J.T. The response of eucalypt roots to infection by Phytophthora cinnamomi (364-368, 4 ref., 8 fig.). Weste, G. Environmental factors controlling severity of disease due to Phytophthora cinnamomi in Victoria (369-370). Nesbitt, H.J.; Malajczuk, N.; Glenn, A.R. Bacterial colonization of Phytophthora cinnamomi Rands (371-375, 8 ref., 4 fig.). ADDITIONAL ABSTRACT: This book contains a selection of the 240 papers presented at the International Microecology Symposium held in New Zealand in 1977. Contributions dealing with soil biology are listed in the two following records.

CC FF600 Pests, Pathogens and Biogenic Diseases of Plants; KK110 Silviculture; JJ100 Soil Biology; FF400 Mycorrhizas and Fungi of Economic

-----  
?s rhodococcus fascians  
S1 142 RHODOCOCCUS FASCIANS  
?s monocot  
S2 2732 MONOCOT  
?s dicot  
S3 3059 DICOT  
?s zeatn  
S4 0 ZEATN  
?s zeatin  
S5 7462 ZEATIN  
?s cytokin  
S6 110 CYTOKIN  
?s cryopreservation  
S7 22230 CRYOPRESERVATION  
? s s2 and s5 and s7  
2732 S2  
7462 S5  
22230 S7  
S8 0 S2 AND S5 AND S7  
?s s4 and s7  
0 S4  
22230 S7  
S9 0 S4 AND S7  
?s s5 and s7  
7462 S5  
22230 S7  
S10 13 S5 AND S7  
?s s7 and s6  
22230 S7  
110 S6  
S11 0 S7 AND S6  
?d s10/3,ab/all

Display 10/3,AB/1 (Item 1 from file: 203)  
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01896565 AGRIS No: 95-098600

A study of growth, flowering, and tuberisation in plants derived from cryopreserved potato shoot-tips: implications for in vitro germplasm collections

Harding, K.; Benson, E.E. (Department of Genetics, Medical School, University of Nottingham, NG7 2UH (United Kingdom))  
Journal: Cryo-letters, 1994, v. 15(1) p. 59-66  
Language: English

- end of record -

?p  
Display 10/3,AB/2 (Item 2 from file: 203)  
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01812091 AGRIS No: 94-106301

Embryogenic cell suspensions and plant regeneration through somatic embryogenesis in banana and plantain *Musa* spp. (Culture de suspensions cellulaires embryogeniques et regeneration en plantules par embryogenese somatique chez le bananier et le bananier plantain *Musa* spp.)

Dhed'a, D. (Kisangani Univ. (Zaire). Faculte des Sciences)  
Journal: Tropicultura, 1992, v. 10(4) p. 152-154  
Language: French Summary Language: English, French

Embryogenic cell suspensions have been initiated using explants from meristematic shoot-tips (scalps). The culture medium has been a modified Murashige and Skoog medium supplemented, according to the steps of culture, with 5 microM 2,4D, 1-10 microM BAP or \*zeatin\*. The suspensions obtained for 5 banana varieties have regenerated plants through somatic embryogenesis. Embryogenic cell suspensions have proved to be the material

of choice for \*cryopreservation\*, protoplast isolation and culture and for genetic manipulation of *Musa* for resistance to diseases.

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12372655 BIOSIS NO.: 200000126157  
\*Cryopreservation\* of white poplar (*Populus alba* L.) by vitrification of in vitro-grown shoot tips.  
AUTHOR: Lambardi M(a); Fabbri A; Caccavale A  
AUTHOR ADDRESS: (a) Istituto sulla Propagazione delle Specie Legnose, Consiglio Nazionale delle Ricerche, Via Ponte di Formicola 76, 50018, Scandicci, Florence\*\*Italy  
JOURNAL: Plant Cell Reports 19 (3):p213-218 Jan., 1999  
ISSN: 0721-7714  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

ABSTRACT: Shoot tips from in vitro-grown, cold-hardened stock plants of white poplar (*Populus alba* L.) were successfully cryopreserved at

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Display 10/3,AB/3 (Item 1 from file: 5)  
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-196degreeC by one-step vitrification. After preculturing at 5degreeC for 2 days on hormone-free MS medium containing different sucrose concentrations, and loading for 20 min with 2 M glycerol and 0.4 M sucrose, shoot tips were treated with the PVS2 vitrification solution and plunged directly into liquid nitrogen. Best survival rate (90%) was obtained when shoot tips were precultured on 0.09 M sucrose, hormone-free MS medium, vitrified by exposure to PVS2 solution for 60 min at 0degreeC and, following \*cryopreservation\*, rewarmed at 40degreeC and washed in 1.2 M sucrose solution for 20 min. Regrowth was improved by plating shoot tips on a gelled MS medium containing 1.5 muM N6-benzyladenine plus 0.5 muM gibberellic acid, while shoot rooting was achieved on MS medium containing 3 muM indole-3-butyric acid. Following this procedure, almost 60% rooted shoots were obtained from cryopreserved shoot tips.

1999

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09215590 BIOSIS NO.: 199497223960  
A study of growth, flowering, and tuberisation in plants derived from cryopreserved potato shoot-tips: Implications for in-vitro germplasm collections.  
AUTHOR: Harding Keith(a); Benson Erica E  
AUTHOR ADDRESS: (a) Dep. Genetics, Med. Sch., Univ. Nottingham, Nottingham NG7 2UH\*\*UK  
JOURNAL: Cryo Letters 15 (1):p59-66 1994  
ISSN: 0143-2044  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: The dynamics of the regeneration process in plants, derived from cryopreserved in vitro potato shoot-tips have been examined. The combined affects of \*cryopreservation\* with different post-thaw recovery media

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Display 10/3,AB/4 (Item 2 from file: 5)  
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(defined by plant growth regulator composition) on plant growth, maturation, flowering, and tuberisation were assessed. Cryopreserved shoot-tips recovered in a medium containing \*zeatin\*, gibberellic acid and indole acetic acid showed relatively rapid, synchronous rates of plant regeneration and maturation, whereas shoot-tips regenerated on hormone-free medium, or media containing auxins and/or gibberellic acid developed asynchronously. The ability of plants derived from cryopreserved shoot-tips to produce tubers was not affected by the \*cryopreservation\* process, unlike the formation of flowers, which was impaired compared to control, tuber-derived plants. In the context of a working genebank, the rate of and ability to synchronize growth of early post-thaw plantlets and their development to mature plants may be important considerations in choosing freezing and recovery strategies for the conservation of potato genetic resources.

1994

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09171441 BIOSIS NO.: 199497179811

Embryogenic cell suspension and plant regeneration through somatic embryogenesis in bananas and plantains *Musa* spp.

AUTHOR: Dhed'a D

AUTHOR ADDRESS: Fac. Sci., Univ. Kisangani\*\*Zaire

JOURNAL: Tropicultura 10 (4):p152-154 1992

ISSN: 0771-3312

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: French; Non-English

SUMMARY LANGUAGE: French; English; Netherlandish

ABSTRACT: Embryogenic cell suspensions have been initiated using explants from meristematic shoot-tips (scalps). The culture medium has been a modified Murashige and Skoog medium supplemented, according to the steps of culture, with 5  $\mu$ M 2,4-D, 1-10,  $\mu$ M BAP or \*zeatin\*. The

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Display 10/3,AB/5 (Item 3 from file: 5)  
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suspensions obtained for 5 banana varieties have regenerated plants through somatic embryogenesis. Embryogenic cell suspensions have proved to be the material of choice for \*cryopreservation\*, protoplast Isolation and culture and for genetic manipulation of *Musa* for resistance to diseases.

1992

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Display 10/3,AB/6 (Item 1 from file: 10)  
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3843169 22061415 Holding Library: AGL

\*Cryopreservation\* of white poplar (*Populus alba* L.) by vitrification of in vitro-grown shoot tips

Lambardi, M. Fabbri, A.; Caccavale, A.

Berlin : Springer-Verlag.

Plant cell reports. Jan 2000. v. 19 (3) p. 213-218.

ISSN: 0721-7714 CODEN: PCRPD8

DNAL CALL NO: QK725.P54

Language: English

Shoot tips from in vitro-grown, cold-hardened stock plants of white poplar (*Populus alba* L.) were successfully cryopreserved at -196 degrees C by one-step vitrification. After preculturing at 5 degrees C for 2 days on hormone-free MS medium containing different sucrose concentrations, and loading for 20 min with 2 M glycerol and 0.4 M sucrose, shoot tips were treated with the PVS2 vitrification solution and plunged directly into liquid nitrogen. Best survival rate (90%) was obtained when shoot tips were

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Display 10/3,AB/6 (Item 1 from file: 10)

DIALOG(R)File 10:AGRICOLA

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precultured on 0.09 M sucrose, hormone-free MS medium vitrified by exposure to PVS2 solution for 60 min at 0 degrees C and, following cryo-preservation, rewarmed at 40 degrees C and washed in 1.2 M sucrose solution for 20 min. Regrowth was improved by plating shoot tips on a gelled MS medium containing 1.5 micromolar N6-benzyladenine plus 0.5 micromolar gibberellic acid, while shoot rooting was achieved on MS medium containing 3 micromolar indole-3-butyric acid. Following this procedure, almost 60% rooted shoots were obtained from cryopreserved shoot tips.

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Display 10/3,AB/7 (Item 1 from file: 50)

DIALOG(R)File 50:CAB Abstracts

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03546949 CAB Accession Number: 981606206

The effect of prefreezing treatment and cryoprotectants on the survival of cryopreserved somatic embryos and plant regeneration in Korean native citrus species.

Oh SungDo

Department of Horticulture, Chonbuk National University, Chonju 560-756, Korea Republic.

Conference Title: Proceedings of the third international ISHS symposium on in vitro culture and horticultural breeding, Jerusalem, Israel, 16-21 June, 1996.

Acta Horticulturae (No. 447): p.499-505

Publication Year: 1997

ISSN: 0567-7572

Editors: Altman, A.; Ziv, M.

ISBN: 90-6605-909-5

Language: English

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Display 10/3,AB/7 (Item 1 from file: 50)

DIALOG(R)File 50:CAB Abstracts

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Document Type: Conference paper; Journal article

Somatic embryos were induced from the micropylar region of ovules of *Citrus junos* x *C. grandis* (*C. maxima*), *C. grandis* x *C. junos* and *C. platyptamma* x *C. junos* on MT medium supplemented with \*zeatin\*. Highest rates of direct somatic embryogenesis were induced in the presence of 0.01

or 1.0 mg/litre \*zeatin\*. Pre-treatment with MS medium containing 10% dimethylsulfoxide (DMSO) and 1.0 M sucrose increased survival of *C. junos*, *C. grandis* and *C. platymamma* to 92%, 84% and 78%, respectively. The most effective vitrification solution as a cryoprotectant was a mixture of 10% glycerol, 10% ethylene glycol and 5% DMSO in MS medium containing 1.0M sucrose. Freezing pretreatment before immersion of somatic embryos in liquid N<sub>2</sub> considerably increased the survival rate. The most effective treatment for preserving somatic embryos was the gradual step freezing method (0 to -16 to -32 deg C). Direct immersion in liquid N<sub>2</sub> resulted in <10% survival and few plants regenerated, but after treatment with cryoprotectants and adequate pre-freezing, plant regeneration reached 80%. 9 ref.

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Display 10/3,AB/8 (Item 2 from file: 50)  
DIALOG(R)File 50:CAB Abstracts  
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03165572 CAB Accession Number: 961601134  
Low temperature storage of in vitro shoots of Japanese persimmon  
(*Diospyros kaki*).

Fukui, H.; Ohba, H.; Nakamura, M.  
Faculty of Agriculture, Gifu University, Gifu 501-11, Japan.  
Conference Title: IPPS Japan potential region. First annual meeting,  
19-22 Sep., 1994.  
International Plant Propagators' Society: Combined Proceedings vol. 44  
p.245-248

Publication Year: 1994, publ. 1995

Language: English

Document Type: Conference paper; Journal article

Shoot tip cultures of cultivars Fuyu and Nishimurawase, cultured on half-strength MS medium containing 1 micro M \*zeatin\*, were assessed for suitability for low temperature storage. At 2 deg C, explants preconditioned on medium containing 60 g sucrose/litre showed high levels

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Display 10/3,AB/8 (Item 2 from file: 50)  
DIALOG(R)File 50:CAB Abstracts  
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of viability. However, for storage at 10 deg C, preconditioning on medium containing 15 g sucrose/litre gave the best results. Shoot explants of Nishimurawase survived for 30 weeks at 10 deg C, while those of Fuyu survived for only 12 weeks at the same temperature. 7 ref.

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Display 10/3,AB/9 (Item 3 from file: 50)  
DIALOG(R)File 50:CAB Abstracts  
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02925167 CAB Accession Number: 941610853  
Initiation of embryogenic cell suspensions and plant regeneration via somatic embryogenesis in bananas and plantain *Musa* species.  
Original Title: Culture de suspensions cellulaires embryogeniques et regeneration en plantules par embryogenese somatique chez le bananier et le bananier plantain *Musa* spp.

Dhed'a, D.

Faculte des Sciences, Universite de Kisangani, Zaire.

Tropicultura vol. 10 (4): p.152-154

Publication Year: 1992

ISSN: 0771-3312

Language: French Summary Language: english; dutch

Document Type: Journal article

Embryogenic cell suspension cultures were initiated using shoot tip

explants from 5 varieties on MS medium supplemented with 5 micro M 2,4-D,  
and 1-10 micro M benzyladenine or \*zeatin\*. Plantlets were successfully

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157 S14  
7462 S5  
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?d s15/3,ab,ti/all

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\*Cryopreservation\* of white poplar (*Populus alba* L.) by vitrification of  
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Display 15/3,AB, TI/1 (Item 1 from file: 10)

DIALOG(R)File 10:AGRICOLA

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precultured on 0.09 M sucrose, hormone-free MS medium vitrified by exposure to PVS2 solution for 60 min at 0 degrees C and, following cryo-preservation, rewarmed at 40 degrees C and washed in 1.2 M sucrose solution for 20 min. Regrowth was improved by plating shoot tips on a gelled MS medium containing 1.5 micromolar N6-benzyladenine plus 0.5 micromolar gibberellic acid, while shoot rooting was achieved on MS medium containing 3 micromolar indole-3-butyric acid. Following this procedure, almost 60% rooted shoots were obtained from cryopreserved shoot tips.

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